MASTER'S THESIS

A WINDOW OF OPPORTUNITY FOR GENDER TRANSFORMATIVE CHANGE?

WOMEN'S AGENCY AND RESILIENCE IN POST-EARTHQUAKE AMATRICE (ITALY)

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A window of opportunity for gender transformative change?

Women's agency and resilience in post-earthquake Amatrice (Italy)

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Abstract

The 2016 Amatrice earthquake had wide social and economic impacts and is one of the most significant disasters in recent Italian history. Disasters may potentially enhance gender equality, as the aftermath can present opportunities for new and more progressive gender roles and relationships to emerge. However, current DRR policies insufficiently challenge existing unequal social and institutional structures and negate the responsibility to translate disasters into opportunities for transformation. In this light, this research aims to understand how women's agency and resilience in post-earthquake Amatrice have provided opportunities for gender transformative change. This mixed method research used in-depth interviews (n=16), small talk (n=12), participant observation (n=2) and questionnaires (n=23) with local residents, second homeowners and organisations. The results show a distinct difference between how men and women responded to the earthquake. This indicates women could have a crucial role in DRR policies and highlights the need for gender sensitive policy which also considers the vulnerability of men. Furthermore, female residents of Amatrice are active and resourceful agents, but their resilience is limited in different ways. In particular age, aside from gender, affected disaster experiences. The results suggest that several opportunities and indications for gender transformative change have appeared in Amatrice since the earthquake. However, the impacts seem limited and the lasting effects remain unclear. Therefore, further research is recommended to enable a comparison, which would contribute to the understanding if post-earthquake changes on a gender level are structural or whether they are reversed with a return to normalcy once reconstruction is further progressed.

Keywords: disaster, gender, earthquake, agency, resilience, gender transformation, Italy, Amatrice

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Chapter 1
Introduction

> *'The time of earthquakes is a time of resilience, warm wind that transforms and moves, time of reality and objectivity, in which it is necessary to develop socially relevant strategies, absorb impacts, analyse and understand vulnerabilities, reorganise systems and ways of life through languages of expression, communication, release. A time when without rebirth, nothing is entirely alive.'* (Roberta Melasecca quoted in Littera, 2019)

On the 24th of August 2016, a 6.2 magnitude earthquake struck Central Italy. Two strong aftershocks hit in October 2016 and January 2017, which caused additional destruction. The total impact killed 299 people, of which 234 in Amatrice. As a consequence, more than half of the small town Amatrice was destroyed and many people were displaced who now have to live in temporary homes (Di Bucci et al., 2020). Five years after the event, the phases of emergency and short term response have passed, but the town is amidst reconstruction and memories are still vivid, making it a suitable case for this research.

1.1 Contextualisation

As men and women[1] have different roles, responsibilities, limitations and capacities, they are impacted differently by disaster (Frerks, 2019), and therefore the impact of disasters on people is gendered. Gender inequalities can result in gender-differentiated disaster impacts. These differentiated impacts can influence gender dynamics, which in turn affect future resilience to shocks (Erman et al., 2021). As such, gender equality is a fundamental part of disaster resilience. There is a growing awareness of the relation between gender and disaster. In the last decades, academic research on the gender and disaster nexus has increased and gender issues have become an explicit part of disaster analysis (Ginige et al., 2014; Yadav et al., 2021). In addition, the Sendai Framework for Disaster Risk Reduction (SFDRR) (2015-2030) emphasises the importance of engaging women in disaster resilience programmes as they are considered more vulnerable (UNISDR, 2015). The framework also recognises the significant role women play in disaster and stresses the need for enhancing their leadership in promoting universally accessible disaster approaches. Nevertheless, the framework represents a missed opportunity for addressing fundamental gender-based issues in disaster risk reduction (DRR) (Zaidi & Fordham, 2021). Despite some progress in acknowledging the importance of gender sensitive DRR, gaps remain in mainstreaming gender into DRR design, planning, resourcing, and implementation (Zone4solutions, 2021).

Gender dynamics often translate into gender-specific patterns of vulnerability and resilience, and affect patterns of coping and perception (Frerks, 2019). Apart from a higher death toll in specific contexts and physical and psychological injuries, women tend to suffer more socio-economic losses (Bordia Das & Erman, 2020; Bradshaw & Fordham, 2013; Neumayer & Plümper, 2007). Resource constraints and gender norms associated with women are the main drivers of gender-differentiated impacts of disasters

[1] Gender is not a binary, and trans/non-binary people are recognised here as well.

(Zone4solutions, 2021). Women may for example be more vulnerable due to their limited access to information and resources, or have limited decision-making authority. With less access to or control over assets such as income, education and social networks, women's vulnerability is in general greater than men's (Bradshaw & Fordham, 2013). These inequalities persist in the everyday and not just in times of disaster, but that is simply when they may become more visible. The gendered risk and vulnerability to disaster then does not arise from biological differences. Instead, it results from cultural and socio-economic factors as well as socially constructed gender roles and the associated norms that govern their behaviour (Bradshaw, 2015; Reyes & Lu, 2016). Gender creates unequal social structures in societies due to power relations, culture and norms that shape gender roles. These affect women's vulnerability, risk perception and response to disaster. Culturally, the patriarchal orientation in society affects power relations, hampering women from experiencing and accessing opportunities (e.g. better jobs, access to education) that would allow them to move towards a better standard of life (Reyes & Lu, 2016). On top of possibly losing tangible assets such as houses, women can also suffer from intangible losses and secondary impacts, such as increased violence and higher job insecurity. To this is referred as a 'double disaster' (Bradshaw & Fordham, 2015).

1.2 Moving beyond women as victims

From academic literature and DRR policy it follows that in addressing women in disaster it is common to view them as special having needs. For example, in the SFDRR women are included within the frame of marginalised groups, reinforcing the victim paradigm (Jha, 2018). However, the labelling of women as vulnerable is limited and problematic for several reasons.

Women are often categorised as vulnerable with children, elderly and disabled people. This implies homogeneity and is insensitive to differences between these groups of people, let alone amongst women themselves (Enarson, 2000). Furthermore, the intersection of gender and disaster in research usually focuses on the idea of women's vulnerability, leading to their victimisation (Nonoguchi & Tanaka, 2016; Nurhadi, 2016). Analyses of vulnerability emphasise people's weaknesses and limitations, which masks the recognition that they capable agents of bringing about change (Wisner et al., 2004). Instead, they are considered passive actors, waiting for external relief (Nonoguchi & Tanaka, 2016). As such, vulnerability and resilience are not two sides of the same coin. Women can be vulnerable, yet resilient at the same time (Gaillard, 2010).

Moreover, the stereotypical images of women as incapacitated victims overshadow the fact that they possess valuable knowledge, skills and experiences that as a consequence remain unnoticed in many disaster policies and responses (Frerks, 2019). The active focus on female mortality and morbidity in the SFDRR reinforces the victim paradigm and downplays the role of women as active contributors to disaster management practices and leaders in DRR (Zaidi & Fordham, 2021). In addition, a vulnerability perspective neglects self-perception. Social groups rarely consider themselves 'vulnerable'. While they may be less resilient in one regard, in another they may have crucial knowledge, capacities and networks.

Another reason why the inclusion of women in DRR policy is questionable, is that in post-disaster relief women may be targeted as virtuous victims. Women who survive, usually do better than males. They are targeted not for their vulnerability, but because they are perceived to be better at providing help. Women's inclusion is then less based on a perceived feminised vulnerability, but the opposite: on the understanding that they are better able to distribute resources to vulnerable others. Efficiency rather than vulnerability is then at the heart of gendered reconstruction projects, making response to disasters another element of women's caring role (Bradshaw, 2015). A focus on women and their vulnerability or virtuousness can deflect attention from power relations (Arora-Jonsson, 2011). As a consequence, current DRR policies risk reproducing or entrenching gender inequalities.

1.3 A window of opportunity?

Rather than emphasising gender inequalities, disasters have been identified by Bradshaw (2013) to offer a 'window of opportunity'. An opportunity emerges for the transformation of the traditional gendered division of labour, roles and unequal gender relations (Nonoguchi & Tanaka, 2016). Disasters are regarded windows of opportunities to work towards gender equality as they disrupt processes that reproduce gender roles, creating spaces for women's empowerment. They are an opportunity to enhance gender equality and women's empowerment, as the aftermath of a disaster can present opportunities for new and more progressive gender roles and relationships to emerge (Robles & Benavidez, 2018). Disasters also elucidate social structures that can change once people use their agency. As a result, disasters can trigger changes that challenge historical patriarchal relations, which could potentially decrease the vulnerability of women in disasters (Moreno & Shaw, 2018).

In a disaster, the formal structures of a society are destroyed. When this happens, the female-dominated informal structure becomes more visible (Enarson & Morrow, 1998). Furthermore, immediately after disaster women's roles are more clearly visible because they are not only restricted to the domestic sphere but exposed to the public domain. Women take actions in protecting and supporting their family members and displaced community in response and recovery phases. These activities entail for example rescue, support, caretaking, managing food and rebuilding homes. This does not only happen because formal structures are destroyed and women become more visible, but also simply because there is a need for them to do so. As they rise to the occasion, latent agency becomes active.

Nevertheless, there are diverging perspectives over whether these changes are temporary or structural. Some argue that disasters do not cause major social change but accelerate pre-existing forms of women's vulnerability. For example, if policy is aimed at efficiency and women's practical needs rather than their strategic interests, no structural gender inequality is addressed (Bradshaw, 2015). In addition, opportunities to renegotiate resources and power might lead to change, but can also reinforce power structures (Warner et al., 2002). The context of a disaster opens up transformative space – but the consequences can also be negative (Le Masson, 2016; Pelling & Dill, 2010). Pelling and Dill (2010) reveal the high number of cases where the temporary post-disaster breaks in dominant political and social systems open space for alternative social and political organisation, such as authoritarian regimes. The opportunity which then emerges may inhibit women's recognition and emancipation in DRR policies

and interventions. Moreover, attempts at promoting women's empowerment may face a backlash as resistance to changing norms can entrench those norms even further. Another challenge is to ensure that this sudden empowerment is not reversed with a return to normalcy once recovery and reconstruction have taken place (Robles & Benavidez, 2018).

Despite the above, results that indicate that disaster can indeed trigger a gender transformation are also evident in the literature. If the social contract is contested in a post-disaster environment, the regime instability which opens up can also have scope for progressive change (Pelling & Dill, 2010) with more gender equality as a result. The physical and social disruption of disaster may destabilise processes of reproduction of gender roles and create potential spaces for women's empowerment (Horton, 2012). Horton's research indicates that the post-earthquake period in Haiti in 2010 saw a new surge of grassroots networks of women, where they organised themselves (both formally and informally) and took on leadership roles. If these are to maintain long-term support, they have the ability to transgress traditional gender roles and norms. A study by Moreno and Shaw (2018) on social change after the 2010 Chile earthquake and tsunami indicates that the disaster was in fact a turning point, bringing radical change in the social structure and gender relations. Indicators for this were for example the recognition of capacities, more women finding themselves in power positions and having the ability to generate independent incomes.

1.4 Research problem

Despite increased attention to gender, current DRR policies and practices insufficiently challenge existing, unequal social and institutional structures; instead, they accommodate the gender status quo (Yadav et al., 2021) and negate the responsibility to translate disasters into opportunities for transformation (Nonoguchi & Tanaka, 2016). Recognising women as powerful actors for change and emphasising their inclusion and engagement in DRR activities contributes to the challenge of decreasing their vulnerability and enhancing their resilience.

Gender equality is a fundamental part of increased resilience to disaster, and resilience can be the pathway to produce changes in gender relations and empower women in the context of disasters (Moreno & Shaw, 2018). Gender and disaster research therefore needs to address women as active and autonomous actors in order to get a better understanding of how disaster affects women's resilience and how these can enable a gender transformation. As such, this research analyses changes in women's agency and resilience post-disaster and concentrates on how these offer indications for gender transformative change.

1.5 Research question

To address the problem stated in the introduction and fill the knowledge gap described before, the following research question is formulated:

(How) do women's agency and resilience in post-earthquake Amatrice offer opportunities for gender transformative change?

This main research question is addressed though the following themes:

- Local gender roles and relations
- Women's agency in post-earthquake Amatrice
- Changes in women's disaster resilience
- Indications for gender transformative change

1.6 Research objectives

This research aims to understand how women's agency and resilience in post-earthquake Amatrice have provided opportunities for gender transformative change. It serves to contribute to an understanding of changes in women's agency and resilience by focusing on their experiences and perspectives as well as opportunities that have arisen. To generate a greater understanding of how disaster can enable a gender transformation and the role of agency and resilience in this, this thesis makes an effort to elucidate changes that appear on a micro scale through the use of a case study. The objective is to find out if there are indications for gender transformative change and how these are constituted.

1.7 Relevance

Contemporary literature is predominantly composed of studies that address the gendered impact of disasters from a vulnerability perspective. Contrastingly, this study will demonstrate women's post-disaster agency and resilience from a local perspective and give insight as to whether these possibly enable gender transformative change. As such, this research will add to the existing body of knowledge on the intersection of gender and disaster. This is especially relevant for the Italian context as well because earthquakes in Italy are no exception, yet gendered approaches in research or to cope with them are scarce. Moreover, this research adds a social research perspective to the 2016 Amatrice earthquake. Addressing gender equality and women's agency contributes to creating a truly gender responsive DRR system, which has failed until now (Zaidi & Fordham, 2021). With the help of analyses like these, we could expect better informed decision making which would serve women and men in disaster situations better. Therefore this analysis may contribute to a more gender responsive DRR strategy and illuminate the ways disaster could serve as a pathway to enable gender transformative changes.

1.8 Reading guide

This introduction will be followed by the conceptual framework, which will discuss the concepts that serve as a baseline for this study. In this framework, the concepts of gender, vulnerability, agency, resilience and gender transformative change are discussed. These concepts structure the research and are used to interpret the data gathered. Subsequently, the methodology chapter illuminates the research methods and shares the ethical considerations that are taken into account. The fourth chapter follows with insights on the case and serves as a contextualisation. Thereafter, chapter five presents the results of the data collection. In the sixth chapter, concepts from the theoretical framework and additional literature are used to interpret the themes that emerged from the data. Moreover, it gives a reflection on the research. Finally, the concluding chapter answers the main research question through a discussion of the most important research outcomes.

Chapter 2
Theoretical and conceptual framework

This chapter serves to structure the thesis and sets the baseline from which disaster is approached. It presents an overview of the theoretical concepts in which this study is grounded. As a constructivist research, it aims to understand how the research population constructs their truth based on their experiences and interactions, rather than exposing an objective truth. The following sections outline a discussion around the concepts gender, vulnerability, agency, resilience and gender transformative change. There is no single theoretical lens that can frame disaster research on gender (Enarson, Fothergill & Peek, 2018). As a frame for analysis, women's agency and resilience and changing gender roles that result from this are investigated to understand how they may reveal indications for gender transformative change.

2.1 Research approach

Figure 1 represents a visualisation of the various theoretical concepts discussed in this chapter and how they interconnect. This research considers how manifestations of women's agency and resilience affect gender roles and relations. Together, agency and resilience may challenge gender relations and initiate gender transformative change. An intersectional approach is used to grasp the differences between women's disaster experiences. This is studied from a constructivist perspective, which understands women's narratives and experiences as shaped by social interactions.

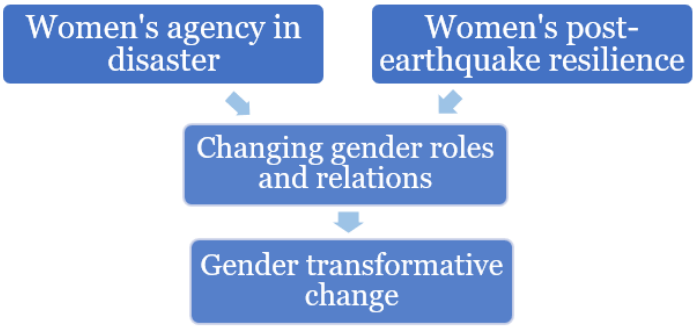

Figure 1. Visualisation of the research approach

2.2 Defining disaster

A disaster occurs where a hazardous event intersects with a vulnerable population (Perry, 2006). While earthquakes can be conceptualised as geophysical hazards, they only become disasters through their encounter with human vulnerability (Massazza, Brewin & Joffe, 2019). A disaster is an extreme phenomenon of great intensity and limited duration, occurring at a certain location, involving a complex interplay between physical and human systems, causing loss of lives and threats to public health as well as physical damage and disruption of livelihood systems and society. It outstrips local capacity and resources and requires outside assistance to cope with. Moreover, a disaster is usually experienced by survivors as a disruption of daily life, as a rift in time and space (Mela et al., 2016). But defining disaster

is not as straightforward as it may seem, as it may for example for one mean a traumatic event whereas another experiences it as an opportunity.

2.3 Gender

There are many ways to approach disaster research, and for this study gender is used as a conceptual lens. It is utilised as a framing to resist gender inequalities and aims to elucidate gender transformative change. The notion of gender only appeared in the 20th century in Simone de Beauvoir's book 'Le Deuxième Sexe' ('the Second Sex'), published in 1949. With that she aimed to separate sex and gender, also understood as biological and social sex. Today, scholars agree that the male and female identity are socially constructed. While the term sex is used mainly in reference to a binary distinction between male or female physical characteristics, gender is the social meaning we impose upon the biological differences that determine sex. Gender refers to the social, behavioural and cultural attributes, expectations and norms associated with being male or female (Pincha, 2008). Gender identity is understood to be a range of socially determined identities, roles, behaviours, attitudes and power assigned to being female, male or otherwise. These are fluid across temporal, political, cultural and other socio-structural contexts (Rushton et al., 2019), and therefore gender can be seen as a process. Gender inequality refers to how these factors determine the way in which men and women relate to each other and the resulting power differences between them.

Gender in relation to development has noted different theoretical shifts. First, the subordination of women was considered as exclusion from the market. Therefore, in order to maximise women's access to modernity, Women in Development (WID) emerged in the 1970s. Later, this changed to Women and Development (WAD), which located the struggle of women in the structure of capitalism (Bradshaw, 2015). Then, a theoretical shift occurred from WAD to Gender and Development (GAD). This focused on the unequal power relations between men and women as the problem. Gender is used to serve the critique of an inegalitarian and male-dominated society. Nowadays researchers are moving towards a more nuanced and comparative approach that examines gender relations in a way that takes into account intersectionality (Enarson et al., 2018).

It should be underscored that synonymising gender to the positions and roles of men and women in society constitutes a reductionist and limited view. Gender is not a binary, but a spectrum. Gender is better seen as an organising principle of social life that affects different levels of social reality, not only individual people. It is part of everyday special relations of power that reproduce or challenge gender and gendered relations (Bouta et al. 2005, in Frerks, 2019). In addition, gender is about the relations between men and women – it is not just about women.

2.4 Gender roles

Gender is often associated with gender roles, a set of social and behavioural norms that in a specific culture are applicable for individuals of a specific sex. Within gender, often certain roles and expectations are assigned to men and women. The performance of gender is significant in particular distributions of tasks, for example in the household; it is through specific tasks that people perform their

gender, and tasks are allocated to either women or men because they are seen as essentially male or female (West & Zimmerman, 1987). Gender roles vary according to socio-economic, political and cultural contexts, and are affected by many factors, such as age, class and ethnicity. Gender roles are learned, negotiated and/or contested and are therefore subject to change (Frerks, 2019).

While Moser's (1993) gender analysis framework is frequently used to explore the division of labour in mostly developing countries, it is also relevant for analysing the burdens associated with gender inequity universally (McLaren et al., 2020). A focus on the triple role that women balance in society, generates a greater understanding of their different gender roles and how these evolve. The triple role for women consists of reproductive, productive and community-managing activities. In contrast, men primarily undertake productive and community politics activities (Moser, 1993). Productive work is associated with paid labour, in which goods are produced and services provided. Reproductive work involves childbearing, cooking or cleaning and caring for family, including children, the sick or the elderly. Community work is focused on improvements to community resources and is often voluntary.

These roles, norms, and values shape how women and men prepare for, react to, and recover from disasters, and they often cause unequal distribution of power, economic opportunities and sense of agency. Traditional norms about the role of men as the primary income earners often prevent women from accessing income-generating opportunities through paid reconstruction work (Robles & Benavidez, 2018). Women's engagement in productive work is often known as routine, less visible and less valued than that of men. Reproductive work is mostly performed by women and it is usually non-monetised, hidden and discursively cast as not 'real work'. In community activities, women most often engage with hands-on manual activities, such as cooking or cleaning, compared to men's community activities, which are more often political and figure-heading. All in all, the reproductive, productive and community activities of women are more often arduous and undervalued (McLaren et al., 2020).

In the context of disaster, policy responses tend to reinforce women's multiple roles, as opposed to those of men. Women are caregivers in the family and become the weight loader in post-disaster scenarios because of their gender role. During post-disaster situations, women's role as caregivers expands dramatically to breadwinners. In such scenarios, they face a heightened risk of gender based violence during and post-disaster (Zone4solutions, 2021). At the same time, changing roles of women, such as household relations, can contribute to their resilience (McNamara et al., 2020). Therefore, these roles are studied in this research in order to find out about increased resilience of women and if this evolves into gender transformative change, two concepts that are discussed later in this chapter.

2.5 Gender and disaster

Disasters are gender-neutral, but the impact and response are not because of the socioeconomic and biological disparities, even at the household level (Zone4solutions, 2021). Hazards in themselves do not trigger damage that is more biased towards one gender. Instead, sociocultural and economic gender dynamics translate into gender-specific terms of vulnerability and resilience. This approach to

vulnerability has formed the theoretical basis for research in the field of gender and disasters (Gaillard et al., 2017).

Gendered differences in disaster outcomes influence the prevailing socioeconomic conditions, which determine gender equality and the capacity to recover from future shocks (Erman et al., 2021). Structural barriers and systemic socio-economic discrimination in society are seen to result in lower levels of access to the resources, skills and information necessary for women to withstand disasters and secure livelihoods, as compared to men (Zaidi & Fordham, 2021). Women may be more vulnerable to disasters than men due to unequal gender relations, which limit their access and control over resources (Bradshaw, 2015). Women's vulnerabilities are exacerbated during times of disaster because the additional responsibilities cast upon them add to their pre-disaster vulnerabilities in which gendered burdens are already inequitable. The impact of additional and intensifying burdens on women can be long-lasting, which they may endure well beyond the resolution of the disaster itself (McLaren et al., 2020). However, deviations from the notion that women are always more vulnerable have been evidenced in a growing number of studies on male vulnerability carried out in diverse disaster situations (Zaidi & Fordham, 2021).

Gender remains a marginalised issue in international negotiations around DRR and gender considerations have hardly been applied as a fundamental in policy and framework development (Bradshaw, 2015). Women's involvement in DRR often has a transformative effect on the communities they serve (Erman et al., 2021). While it is critical to understand how women are vulnerable, it is just as essential to understand their capacities and strengths in disaster situations (Enarson, Fothergill & Peek, 2006). Women's networks play an important role in disaster response (Bradshaw, 2015), and at the grassroots level, women's self-organisation is challenging stereotypes. Post-disaster women's projects can move from immediate emergency needs to long term strategic interested of women in political participation, decision-making, self-confidence and technical knowledge (Enarson et al., 2006).

In this research the focus is primarily on women, but men are also involved as they are also relevant actors in determining changes in local gender roles and relations, women's agency and resilience. In addition, gender is a relational topic and men also have specific needs, capacities and vulnerabilities. Successful interventions will have to include men, as meaningful changes cannot happen without 'the other half of gender' (Bannon & Correia, 2006 in Frerks, 2019).

2.6 Vulnerability

It has been highlighted how gender dynamics translate into gender-specific terms of vulnerability and resilience. Vulnerability refers to the susceptibility to harm and is socially determined, because it depends on the ability of people to cope with the impacts, which is situated in socioeconomic processes such as gender. Root causes, dynamic pressures and unsafe conditions in combination with a hazard cause a certain degree of vulnerability. The specificity of vulnerability may thus differ and a generalised belief in women's vulnerability silences contextual differences. Gender gets treated not as a set of complex and intersecting power relations but as a binary phenomenon carrying certain disadvantages

for women and women alone (Arora-Jonsson, 2011). So it is the systemic characteristics of society, rather than just the exposure to disaster that make a group vulnerable (Gallopín, 2006).

2.7 Women's agency in disaster

This study enquires how women's agency in post-earthquake Amatrice contributes to gender transformative changes. The argument of including agency into this research is that it helps to overcome the perception of women as powerless victims in disasters. There has been less focus on their agency and capacities in the face of a disaster, as well as the crucial role they often take on as first responders (McNamara et al., 2020). Women take action based on their social networks or individual strategies, to which we can refer as agency. The concept of agency then denotes an active rather than submissive stance (Haffejee & Theron, 2019). Women are key actors in the management of coping strategies within the community. They acquire abilities to mitigate hazards and prevent disasters, and to cope with and recover from the aftermath.

Donald et al. (2017) conceptualise women's agency based on the main definitions in literature and distinguish three core dimensions: 1) the ability to define goals; 2) self-perceived ability to achieve these; and 3) acting towards this goal independently. In the context of women's agency in disaster, it is understood as the capacity to make decisions about one's own life and act on them to achieve a desired outcome, free of violence, retribution, or fear (Erman et al., 2021). It relates to women's capacity to act, choices, actions, activities and decision-making with regard to their role and involvement in response and recovery (McNamara et al., 2020). Women's capacities, knowledge and skills in all stages of the disaster cycle have not sufficiently been recognised and taken into account, while agency can be used to engage in a process of change (Raj, 2020).

In the gender and development sector Kabeer (1999) has established women's agency as a fundamental skill for empowerment. She defines agency as 'power to', and more specifically, as 'people's capacity to make their own life choices and define their own goals, even in the face of opposition from others'. Explicit in Kabeer's construction of agency is the idea of goal setting and action towards those goals. Yet agency (just like gender) is not a monolithic construct (Sidle, 2019). Although some agency is universally purposeful, there are also capacities that are locally defined. Examination at a closer level shows how individuals are active and resourceful, and demonstrate their agency in a specific context (Lazrus et al., 2012).

Good recovery initiatives require the skills, knowledge, and contributions of both women and men and provide an opportunity to promote gender relations that improve the resilience of individuals, families, and communities (Robles & Benavidez, 2018). Agency often emerges as an enabler for resilience (Haffejee & Theron, 2019). Women's agency in disaster can therefore initiate a change in gender roles, reduce vulnerability and increase resilience. To transform gender inequality, women's capacity, knowledge and skills are considered to understand the way in which women exercise agency (Erman et al., 2021).

2.8 Resilience

Resilience is a widely studied concept, especially in the realm of disaster. As a result, a wide variety of frameworks and approaches exist. The International Federation of Red Cross and Red Crescent Societies (IFRC) defines resilience as the following: 'The ability of communities (and their members) exposed to disasters, crises and underlying vulnerabilities to anticipate, prepare for, reduce the impact of, cope with and recover from the effects of shocks and stresses without compromising their long-term prospects' (IFRC, 2017). The idea of resilience includes inherent conditions of social systems that allow the system to absorb impacts and cope with an event, as well as post-event adaptive processes that facilitate the ability of the social system to re-organise, change, and learn in response to a threat.

Resilience to disaster can be operationalised according to the conceptual framework of Erman et al. (2021), which considers the role of gender in disaster risk and resilience. According to these authors, preparedness and coping capacity together comprise the definition of resilience. They propose a framework that looks at gender dynamics in the drivers of preparedness and the ability to recover (coping capacity). In Table 1 the indicators for preparedness and coping capacity are outlined.

Preparedness	Coping capacity
Risk perception	Access to finance, savings and assets
Preparedness actions	Livelihood
Early warning	Migration
Evacuation behaviour	Social protection

Table 1. An operationalisation of resilience according to Erman et al, 2021

According to this framework, disaster preparedness is impacted by risk perception, knowledge on how to prepare, actual preparedness action, and access to early warnings. It is also outlined how resilience is composed of coping capacity, which is driven by access to coping mechanisms (e.g. savings and other assets, credit, remittances), social protection, sources of livelihood, availability of alternative labour or income options and the ability to migrate. In many of these factors, gender plays an important role. The activities which women undertake in the context of resilience, such as networking, communicating risks, entrepreneurship and caretaking activities, attribute to the factors outlined that enable resilience (Erman et al., 2021; Horton, 2012; McNamara et al., 2020; Moreno & Shaw, 2018).

Gender can contribute to the factors that determine disaster preparedness. These include socioeconomic status, risk perception, education, access to information and media, and previous disaster experience. It is generally believed that perceptions of risk strongly influence the way people adapt and prepare for shocks. It is not clear how gendered differences in perceived risk of disasters translates into preparedness action; but responsibilities in household and social family roles seem to matter. The availability of coping mechanisms that can support households affected by disaster to withstand income shocks, protect or diversify their livelihoods, or adapt to new conditions that will determine their ability to recover.

The conceptual framework presented above offers a way to understand and study resilience, but it also presents a shortcoming. Note how coping capacity does not equate to resilience. To cope is to handle stressful situations, whereas resilience is the adaptive capacity to recover from such situations in relation to a future shock event. As such, the consequences of the two concepts may differ. But preparedness in itself does not make the difference between coping and resilience. Therefore, the framework by Erman et al. is supported and complemented with the 3As framework. This framework covers more or less the same indicators as that of the framework by Erman et al., but it distinguishes them on the basis of a set of three interrelated resilience capacities: the capacity to adapt to, anticipate and absorb disasters (Bahadur et al., 2015). Table 2 illustrates the indicators of each capacity.

Adaptive	Anticipatory	Absorptive
Assets & income	Preparedness and planning	Social systems
Strengthening and adapting livelihoods	Risk information, acting on forecasts and evacuation	Skills & resources
Information	Capacity, coordination, mobilisation	Savings & safety nets
Basic services		Substitutable & diverse assets and resources

Table 2. The 3As framework based on Bahadur et al., 2015

The 3As framework therefore complements the framework by Erman et al., as it demonstrates how preparedness is not the only difference between coping capacity and resilience. Anticipatory capacity aligns with preparedness in the framework of Erman et al., but absorptive and adaptive capacity are more elaborate and demonstrate how not only different sources of livelihood comprise resilience, but also strengthening and adapting these. Moreover, it includes basic services, skills & resources and social systems. Despite the understanding that resilience comprises more than preparedness and coping capacity, this research uses the framework by Erman et al., bearing in mind the differences between adaptive, anticipatory and absorptive capacities, but not explicitly operationalising basic services and social systems. Moreover, this framework serves as a guideline and also focuses on participant's own interpretation of their resilience. This is rooted in constructivist research approach, further elaborated in section 3.1.

This research considers how agency and changing gender roles inform women's resilience in disaster and how they together give indications for gender transformative change. Resilience can not only be viewed as 'recovery to withstand' or 'bouncing back', but it also offers an opportunity to 'bouncing forward', in a way that challenges gender relations and brings about a gender transformation.

2.9 Gender transformative change

Earthquakes can act as an accelerator of processes at different levels. The factors (e.g. socio-economic dynamics) already present in the social system, can be amplified or revealed by the "faults", which are activated by the triggering agent (Mela et al., 2016). Disasters are therefore regarded as potential

windows of opportunities to work towards gender equality as they disrupt processes that reproduce gender roles, creating spaces for women's empowerment. The disruptive effect of disasters can challenge or elucidate formal social structures that may initiate change if people use their agency. Consequently, disasters can trigger long-lasting changes that challenge historical patriarchal relations. To this, we can refer as a gender transformation.

Gender transformative change requires individual agency through critical analysis and awareness of how power inequalities affect relationships and opportunities, network-building to strengthen relationships, and organising to influence structural change (Hillenbrand et al., 2015). The empowerment of women to improve their access to information, skills, services and technologies and to promote their participation in decision-making is key in gender transformative approaches (Rutgers, 2018). Thus, a gender transformation is more than income generation or service provision. Rather, it encompasses consciousness raising, development of women's leadership capacity, advocacy networks and coalition formation (Horton, 2012).

Hillenbrand et al. (2015) examine gender transformative change across three dimensions: agency, relational and structural. With 'agency' individual or collective capacities, attitudes, critical reflection, assets, actions and access to services are understood. 'Relational' refers to the expectations and cooperative or negotiation dynamics embedded within relationships between people in the home, market, community, and groups and organisations. Finally, with the 'structural' dimension, the informal and formal institutional rules and practices are considered. At the same time, Hillenbrand et al. (2015) refer to the three strategic areas for gender transformation in relation to women's empowerment and gender equality: economic empowerment, political empowerment and bodies & sexualities. The authors recognise that gender transformative change is effectively about transforming power relations, and thus base their indicators around the four main domains of power: power over, power to, power within and power with.

Alternatively, Moser's (2021) urban gender transformation framework differentiates between gendered poverty reduction, empowerment and transformation. It illustrates how changes in persistent gender-based inequalities in access to financial, physical, human, natural and social capital occur within contexts of broader driving forces that present constraints and opportunities. The framework recognises that while the strategic exercise of agency can erode inequalities, it is far more challenging to address and destabilise wider structural inequalities, reaching strategic gender interests associated with transformative processes. These are more likely to be achieved through collective actions that challenge gender power relations linked to fundamental inequalities. In her approach, Moser (2021) defines gender transformation specifically as an inherently political act, which she closely associates with changing social or gendered power relations. As a transformative 'act' it questions the status quo, and in so doing alters the underlying power dynamics that perpetuate gender inequality.

Gupta (2000), quoted in Rutgers (2018), understands gender transformative approaches as the ability 'to reshape gender relations to be more gender equitable, largely through approaches that free both

women and men from the impact of destructive gender and sexual norms'. Gender transformative interventions aim to accomplish the following: 1) raise awareness about unhealthy gender norms; 2) question the costs of adhering to these norms; and 3) replace unhealthy, inequitable gender norms with redefined healthy ones. Gender-transformative approaches encourage critical awareness among men and women of gender roles and norms; promote the position of women; challenge the distribution of resources and allocation of duties between men and women; and/or address the power relationships between women and others in the community (Rottach et al., 2009). These approaches aim to go beyond individual self-improvement among women towards transforming power dynamics and structures that act to reinforce gendered inequalities.

The above demonstrates the complexity of gender transformative change. The nature of gender transformative processes and the geographic, organisational and social complexity of livelihood systems and operating contexts make it unadvisable to prescribe specific leading indicators (Hillenbrand et al., 2015). For this research, an additional limitation emerges as measuring gender transformative changes requires at least two measurements over a larger timeframe to indicate whether change has occurred. Then still, changes might have happened for reasons other than the disaster. As a consequence, this research will not draw conclusions on whether or not a gender transformation took place as a result of the earthquake. Instead, this research aims to shed light on indications for gender transformative change. Therefore, the results of this study are based on participants' own interpretations of gender transformative change. This is rooted in a constructivist research approach, which is further explained in section 3.1.

In Table 3 a summary of indications at the individual level which direct towards gender transformative change is listed. These indicators are based on existing literature and this list is not exhaustive nor all-encompassing but gives direction as to what might indicate gender transformative change. The indicators are presented to respondents and thereby interpretative research to their construction of gender transformative change is conducted.

leadership capacities; independent income generation; consciousness; obtaining power positions; organisation in networks; control over assets; knowledge and skills; equitable household decision making; manifestation; emancipation

Table 3. Indications of gender transformative change

2.10 Intersectionality

Women and men are not equal in the face of disaster, but women among themselves are not equal either. Therefore, when approaching disaster from a gender perspective, intersectionality matters. It is critical to go beyond the binary and address a gender continuum as it intersects with other axes of difference. Gender categories are not monolithic homogeneous groups, but their diversity must be recognised instead. Insufficient attention has been paid to the way in which disasters endanger the wellbeing of men or other gender categories similar to women. This is because, often, policies do not consider that

individuals simultaneously belong to multiple social groups - gender being just one of these - which shapes their risk profile in the context of disasters (Zaidi & Fordham, 2021).

The adoption of an intersectional lens for the study of women and disasters has spurred progress, but rarely have disaster policies addressed the risk and resilience of women in a holistic and cohesive fashion which recognises their multiple identities. Over the years research in the domain of gender and disaster has underlined the importance of intersectionality and showed important differences in women's disaster experiences (Enarson et al., 2018). When gender is seen as a process it cannot be examined in isolation from other social processes. Taking intersectionality into account is important in order to understand women's experiences. Crenshaw (1989) coined the notion of intersectionality and demonstrated that frameworks focusing on either gender or race fail to capture the experiences of marginalised black women who experience both forms of discrimination.

Everyone's multiple identities shape different experiences. Differences in female and male vulnerability to risk are often exacerbated by marginalisation due to age, race, ethnicity, disability, and sexual orientation, as well as socioeconomic status, geographic context, cultural and religious beliefs, and migration status (Robles & Benavidez, 2018). But aside from vulnerability, agency and resilience as intersectional as well, shaped through the same characteristics. Only by being attentive to the complex and interlinked experiences that women, men and other gender groups face in disaster situations, can effective policies for gender sensitive DRR be developed (Zaidi & Fordham, 2021). Finally, adopting an intersectional approach is necessary as it may serve as an explanatory factor in the gathered results.

The theories and concepts described above are used to answer the main research question. The methodology used to approach this is outlined in the following chapter. From that, the conceptual framework is operationalised in an interview list to be found in Appendix A.

Chapter 3
Methodology

In this chapter the research methods that were used to gather the data are presented. Thereafter, it is explained how the data was analysed. Lastly, ethical considerations including limitations and reflections are unpacked.

3.1 Data collection and analysis

This is mixed method research uses both qualitative and quantitative research methods in order to answer the main research question. The research methods used are in-depth interviews, small talk, participant observation and questionnaires. The variety of methods allow for triangulation of data which enhance the validity of the research. A combination of inductive and deductive coding led to a thematic qualitative analysis.

Research methods

The body of data was gathered by conducting in-depth interviews. This method was suitable because it reinforces the purpose of gaining insight into the research issues from the perspective of research participants (Hennink et al., 2020). In-depth semi-structured interviewing is based on an interview guide, such as a list of questions and topics that need to be covered. In Appendix A, the interview guide can be found which was designed on the basis of the concepts from the conceptual framework. Performing semi-structured interviews allows for open answers and exploration of issues that respondents find important (Longhurst, 2003). An open approach was chosen to facilitate the process of respondents narrating their own stories. For respondents 15 and 16 a structured interview was conducted over e-mail due to logistical constrains, each with a different interview guide, see respectively Appendix B and Appendix C. In total 16 interviews were conducted, three of which were online. The other 13 interviews were conducted on a location preferred by the respondent. This was most often the agriturismo[2] that the researcher resided at. Thirteen interviews were conducted with local residents, the other three with people specifically related to a relevant organisation.

Aside from interviews, observations were made to obtain a better understanding of the fieldwork site in terms of reconstruction as well as gender relations. In addition, small talk was performed. This method was useful for different topics but helped for example in the understanding of societal norms and values and perceptions on the earthquake. The method was additionally useful to the interviews because it requires less time of respondents (Driessen & Jansen, 2015). It was facilitated easily through arrival of new guests in the farmhouse, or when people approached the researcher on the street. Moreover, small

[2] The word *agriturismo* is a combination of the Italian words *agricoltura* (agriculture) and *turismo* (tourism). An agriturismo is effectively a farm designed to also receive guests, whether for food (lunch and dinner), holiday accommodation, or a combination of the two (Knoedler, 2015).

talk did not always require the presence of a translator, contrary to interviews, which made it a suitable research method. In total, 12 instances of small talk were performed.

Participant observation was another source of empirical data for this research. This method allowed me to be part of, observe and take note of diverse social situations and events. It gave less control of the research situation and led me react to and interact with others in the events that unfolded before me (DeWalt & DeWalt, 2011). Employing this method, I was able to gain knowledge within the setting itself and gain an insider point of view. Participation took place with two organisations: the local women's organisation La Casa delle Donne and an Italian research group called Emidio di Treviri. It took place in various ways at different times, for example through attending presentations, participating in activities and visit meetings.

In addition to the abovementioned qualitative research methods, questionnaires were also distributed and collected between November and December 2021. The questionnaire was translated to and distributed in Italian which allowed the inclusion of more respondents. Moreover, questionnaires were shared both in print and online. The use of questionnaires was a relevant method, as time and logistical constraints limited the possible amount of interviews, and thus questionnaires gave a wider and easier distribution of questions, enhancing the validity of the total body of data (Marshall, 2005). In total 23 questionnaires were collected, of which 15 online and 8 in print. See Appendix D for the questionnaire.

Constructivist research approach

For this research a constructivist approach is used. Constructivism is an understanding of the world that is inherently socially constructed. This paradigm emphasises understanding rather than explaining, which is deemed more appropriate to investigate agency, resilience and gender transformative changes in post-earthquake Amatrice. The results of this study are based on participants' own interpretations of gender transformative change. As people experience the world and reflect upon this, they build their own representations and incorporate new information into their pre-existing knowledge (Given, 2012). This research focuses on participants' own stories and interpretations of the concepts from the conceptual framework which are shaped through experiences and interactions. Depending on someone's surroundings, social relations, disposition or feelings, the presentation and interpretation of gender identity and gendered behaviour can vary. A constructivist actor-oriented paradigm therefore constitutes an attractive perspective for understanding the experiences of the research participants. Moreover, this approach focuses on women as social actors actively participating in processing their knowledge, skills, practices and coping strategies in disaster phase, and thus fits well within the context of de-victimising women in disasters.

Finding respondents

Data collection took place between October and December 2021 in Amatrice. Respondents were found through snowball sampling (via referrals), and purposive sampling for relevant local networks/initiatives. The process started off by contacting the local women's organisation La Casa delle Donne ('The Women's House'). This organisation was found online via a project called 'Do Not Neglect

Equality' in collaboration with several other organisation, which had just finished. This organisation served as a main gatekeeper to find respondents. The organisation was relevant, because women's community organisations have insights, information, experiences, networks and resources that are vital to increasing disaster resilience (Robles & Benavidez, 2018). From here on, I was able to attend meetings and participate in activities. Moreover, in order to avoid a selection bias of the specific kind of women attracted to La Casa delle Donne, I deliberately searched for other respondents via snowball sampling as well as through my translators, some of which had a local network. For the questionnaires, respondents were approached while at work (in shops, supermarkets or the agriturismo), as this proved to be the time where it was easy to approach someone and explain the research to in Italian. Respondents were given as much time as they needed to fill out the questionnaires, after which they were collected at a convenient time. The online questionnaires were shared on local Facebook groups and via interview respondents through WhatsApp. See Appendix E for an overview of the respondents.

Data analysis

For the qualitative section, all 16 interviews were recorded with permission and transcribed verbatim. While transcribing, the main themes running through the interviews were noted and categorised into preliminary coding labels. This inductive method allowed themes to arise naturally. The various codes were then grouped into themes to facilitate analysis. All interviews, small talk and participant observation were then thematically analysed with the finalised coding frame in order to explore the most frequent themes in depth. The entire qualitative data analysis was conducted on ATLAS.ti (version 22). The questionnaires were digitalised and translated after which they were coded using the same coding frame. Moreover, in the questionnaire, self-ascribed agency was measured using a Likert scale. These results were analysed and visualised using Microsoft Excel software. All data was stored on a personal laptop and in OneDrive, both secured with a password. The interviews took about an hour on average but varied from 30 to 90 minutes. In this report all respondents are anonymised through the use of a code and corresponding respondent number. These codes are 'R' for interview respondent, 'S' for small talk, 'P' for participant observation and 'Q' for questionnaire respondent. For in-text references, this research did not make an explicit distinction between respondents on the basis of their gender, age or profession. This choice was made because no contradiction seemed to appear between the groups, and it is acknowledged that all respondents are a mix of their social characteristics and therefore do not belong to one distinguishable group.

3.2 Ethics

This section will reflect on several ethical considerations that were considered before the start of the fieldwork and reflects on why they are important. These regard positionality, informed consent, trauma, language barriers, the COVID-19 pandemic and other limitations.

Reflexivity and positionality

It is of essence to understand the effect the researcher has on the respondents and data. Qualitative ethnography is less controlled and more interpretative compared to qualitative research. Therefore, a need arises to reflect on my position as a researcher, taking into account how my participation and

perception might have influenced the results. My positionality is important in how I analyse the experiences of respondents, as it influences the data that I obtain and because I am the research instrument of this study. My identity and location in time and space influence how I make sense of my environment and my knowledge is the product of my specific position (Lecocq, 2002). In addition, access also depends on your positionality as it shapes the relations you can form in the field. The experiences you have or *can* have in the field, affect the kind of knowledge that is produced, the kind of data that is collected and the kind of papers that can be written. For example age, race, gender and sexuality play a role in this. As a tall, blonde female in a small community I was bound to stand out and received quite a lot of attention, sometimes also unwanted.

As researchers we do not see things as they are, but we see them as we are. Fieldwork is filled with thoughts and assumptions, explicit and implicit choices, biases, ethical considerations, insecurities and emotions. It is a story on its own, though often rendered invisible. Ethnography does not have an ethical element, but rather is an ethical commitment from the very outset (Madden, 2017). Having a reflexive attitude helped me to become aware of and considerate to the surroundings. I aimed to remain neutral in responses and questions and performed dairy-style reflection on thoughts that arose during the research process.

Informed consent

Regarding the positionality of the researcher in the field, the interviews with respondents were grounded in personal experiences. For this reason I hold a certain accountability to these people. Gender is a sensitive topic that needs to be addressed carefully and respectfully when entering the field. Anonymity and confidentiality are two important aspects to bear in mind when approaching respondents and processing data in order for no one to be harmed by this research (Bernard, 2011; Hennink et al., 2020). As such, informed consent was adhered to for this research. Individual consent is still one of the main pillars of conducting ethical research. Through this, participants are given the opportunity to make an informed choice with regards to the potential risks and benefits of participation.

In this light, respondents were made aware of the nature of the study and that participation was voluntary and anonymous. In addition, it was explained that participation would not have a direct benefit to them. Moreover, I emphasised to respondents how they were always in charge, that there were no right or wrong answers and that I was interested in hearing their story. They were free to stop at anytime, take a pause, or choose not to answer a question. The informed consent form (see Appendix F) was agreed to by all interview respondents, and included information about the research aim, ensured anonymity and voluntary participation. For written questionnaires, participant observation and small talk, this was expressed verbally, and for online questionnaires this was explained in the introduction.

Trauma

All respondents went through a very impactful and traumatising experience or were impacted indirectly by this. The reconstruction in Amatrice is ongoing and despite this research was conducted five years after the event, the earthquake is still part of respondent's daily lives. My presence and questions could

trigger memories in relation to the earthquake. Asking people about their experiences therefore required a careful and empathic approach. All respondents were open and willing to share their perspectives and stories, although this sometimes paired with clear emotion about the topic. When this happened, I would take a break and acknowledge the feelings of respondents. Moreover, respondents were reminded that they were not obliged to answer, could take a break, or withdraw from the research at any time.

Language barrier

This research required the presence of a translator, due to an insufficient level of Italian by the researcher to perform in-depth interviews. Moreover, a very poor to absent level of English was spoken in the research area. However, the use of a translator impacts the knowledge produced, for example in how the responses are interpreted, or to the variety of respondents found. Not speaking Italian might have limited the amount of data I could gather. Moreover, positionality is affected when you change translators in the field (Mwambari, 2019).

For this research, no funds were available to pay for a fixed translator. Instead, six different translators were approached before the fieldwork period or found in the field itself. This affected the kind respondents I could approach and enlarged the number of respondents. However, it also affected the quality of translations as the level of English of translators varied and a poorer relationship between researcher and translator was build. Finally, the relation of the translators to the respondents affected the responses given.

Translator 1 was an Italian friend of the researcher with an excellent skill of English and found himself outside the research setting. He was contacted online and helped in approaching organisations beforehand as well as translating the questionnaires. Translator 2 was a local man that grew up in Amatrice, moved to the UK and was now back. His level of English was working proficiency and he was approached via my host. Translator 3 was a student, daughter of one of the respondents and family from my host. She studies in Rome and returns to Amatrice sometimes during weekends. She posed wide knowledge of the area and with her translations she aided the data collection a lot. Translator 4 was approached via translator 2 and also worked in Rome but returned to her territory for one weekend and helped to translate a written interview response. Translator 5 was a Dutch family member of the researcher living in Italy. She visited the research site to meet me and was fluent in both Italian and Dutch. Her translations were from Italian to Dutch and the transcription was translated to English by the researcher. Finally, translator 6 found herself outside the research site and translated several smaller texts and one live online interview. She was approached through referral by an Italian friend.

Doing fieldwork in a pandemic

This research was written at a time characterised by COVID-19, which has also affected gender dynamics. While the pandemic is outside the scope of this research, it would be negligent not to consider the impact that it has had on Amatrice and the new challenges that have arisen in relation to gender dynamics (Erman et al., 2021). Therefore, female respondents were also enquired about the impact of the pandemic on the reconstruction, their gender roles and responsibilities and on the

community. Moreover, immersing oneself in a foreign field during a pandemic also comes with challenges. To cope with these, (health) risks were considered beforehand through an assessment and the local guidelines (e.g. social distancing and use of facemasks) were adhered to. Moreover, with regular self-testing and being vaccinated, no additional health risks were posed to the respondents.

Scope and limitations

This research was approved by the Social Sciences Ethics Committee at Wageningen University and Research (see Appendix G). Time limitations and logistical constraints cause this study to provide only a sample of the perspectives in Amatrice. The findings of this research are not representative of all women across time and space, as women are not a homogenous category and gender is constantly being reconstructed (McNamara et al., 2020). I am not able to account for all women and thus cannot make conclusion for a whole gender. As such, no generalised conclusions can be drawn. Engaging men (and other genders) is critical for a more holistic understanding and addressing gender dynamics as well and were therefore approached, too. Moreover, this research also considers additional social categories that respondents belong to by considering intersectionality. Also, a confirmation bias of finding indications for gender transformative change such as women's empowerment, is born in mind.

Finally, an account of avoiding a research fatigue also needs to be made. Prior research has taken place in Amatrice, but profoundly from a geophysical basis. Social research, let alone from a gender perspective, is scarce. The absence of research fatigue was also confirmed by respondents in the field, who expressed happiness to have someone listen to their own stories and looking at the residents, rather than researchers who studied the geophysical and material aspects of the earthquake impact. Having established the theoretical framework and methodology for this research, the following chapter give a contextualisation of case in question: the 2016 Amatrice earthquake.

Chapter 4
The 2016 Amatrice earthquake

This chapter presents the context of the case for this research: the 2016-2017 Central Italy earthquakes, also referred to as the 2016 Amatrice earthquake. It serves to give background information on the earthquake and a contextualisation of Amatrice. The first section on the disaster provides information on the disaster effects and impacts, places the event in a historical perspective and discusses Italy's seismic vulnerability which has contributed to the high number of losses. Moreover, this section describes the ongoing reconstruction of the town. The second section on Amatrice provides information on geographical and political aspects and gives an overview of the demographic trends. Finally, it sheds light on the local economy. Together, these topics contribute to an understanding of the research context.

4.1 The 2016-2017 Central Italy earthquakes

Italy is one of the European countries that are most heavily exposed to a wide range of natural hazards (Frigerio & De Amicis, 2016). The series of seismic events that hit the Central Apennines since August 2016, destroying thousands of villages and leaving tens of thousands of people homeless, is one of the most significant socio-natural disasters in recent Italian history (Emidio di Treviri, 2018). The impact of the 6.2 magnitude mainshock caused 299 deaths, of which 234 in Amatrice. The long seismic sequence that followed involved 140 municipalities in four different regions and a population of approximately 600.000 residents. When the earth shook, the town Amatrice was severely damaged. It experienced a range of primary and secondary effects that had wide social, economic and environmental impacts. Of the 300 buildings in the historic centre, 240 were completely destroyed; 80% of the buildings located in the centre suffered damage which led to their complete demolition (Fiorentino et al., 2018). The historical centre was declared inaccessible and much cultural heritage was lost. Figure 2 indicates the central location of Amatrice in Italy on the left and a shake map of mainshock on the right, clearly showing how it struck in the border of four different regions. The image on the right displays a damage grading map of the town produced after the event (Cappucci et al., 2020). Further powerful shocks struck the region again in October 2016 and January 2017. The events were clearly felt in Rome, which is some 100 km far away, while the damage inflicted on buildings extended up to 40 km north (Galli et al., 2016). However, earthquakes in Central Italy are not uncommon.

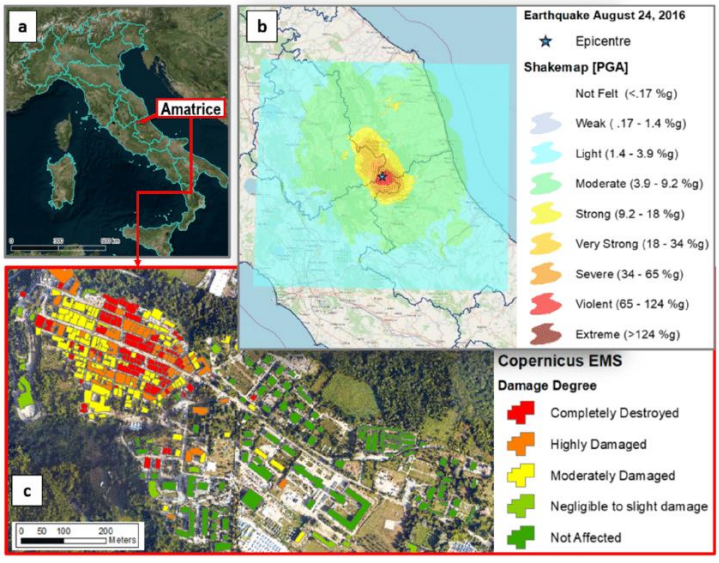

Figure 2. Combined overview of the research site (left); shake map of the event (right), and a damage grading map (bottom) (Cappucci et al., 2020)

The mainshock occurred in the most seismically active part of Central Italy. Amatrice has been affected before by a powerful earthquake in 1639 which caused 500 fatalities. More recently, Central Italy has been struck by two strong mainshocks: The 1997 Colfiorito earthquake and the L'Aquila earthquake in 2009 (Mela et al., 2016). Together with the nearby earthquake in L'Aquila, the one in Amatrice is the strongest event that struck Italy since the Irpinia earthquake in 1980 (Galli et al., 2016). However, memory of earthquakes is often lost, even in Italy, a country with long seismic history (Gribaudi, 2015 in Mela et al., 2016). Cultural memory is important, because it not only informs people's knowledge of their environment and vulnerability, but it also influences their interpretation of risk and their exposure to future disaster. It provides a means by which following generations can understand, contextualise, prepare for and recover from disasters (de Jong & van Tilborg, 2019). Neither the 1639 nor 1980 earthquakes are remembered through education, cultural institutions or landmarks. The lack of memory of relevant seismic impact can be ascribed to the long time elapsed since the last local event in 1639 (Quest et al., 2016), yet the city of L'Aquila that suffered a strong earthquake in 2009 is only a 1-hour drive away.

Earthquake vulnerability is a function of the potential losses from earthquakes and the level of preparedness. Although earthquakes are sometimes predictable, this earthquake took everyone by surprise as there was no increased seismic activity in the days ahead, in contrast to the 2009 L'Aquila event. The high number of casualties is not only ascribed to substandard buildings and the absence of any warning, but also due to the fact that residents and tourists were crowding the area in August because of the yearly traditional food festival. Moreover as the earthquake happened at night time, many people were inside their houses, causing them to be more vulnerable.

The Amatrice earthquake is considered a socio-political phenomenon at its core (e.g. Massazza et al., 2019). The effect of past seismicity in the localities of the epicentral area were not properly considered to improve building vulnerability over time. In addition, the Italian government is heavily criticised over the enforcement of its building regulations which facilitated constructions with structural weaknesses that exposed the buildings to high risk of collapse. A national action plans was developed after the 2009 L'Aquila earthquake to have safer buildings and infrastructure. But in 2020, still no systemic policy intervention was implemented. These interventions are of importance to Italy, since it is the European country with the highest probability of disasters and related economic loss (Pagliacci & Russo, 2020). Seventy percent of Italy's buildings do not meet seismic standards, including new buildings. This is in spite of €1 billion being allocated to improve buildings after the 2009 earthquake in nearby L'Aquila. For example the school in Amatrice, despite being refurbished in 2012, collapsed, indicating substandard building practices. Earthquake survivors in Amatrice did not perceive the earthquake damage as being only the result of uncontrollable and unpredictable forces of nature. Rather, building firms, the State, and the municipality were the human entities that received the highest level of blame. As such, the slowness of Italian bureaucratic procedures and the corruption of the institutions were identified by Amatricians as insurmountable obstacles that have doomed Italy to seismic vulnerability (Massazza et al., 2019).

After the earthquake, a significant part of the residents opposed the proposal of evacuation and moving to the coastal area. In this sense, an essential character of the community's resilience emerged: the strong bond to the homeland as well as the sense of identity, which originates from the relationship with the landscape and the cultural heritage (Mela et al., 2016). Instead, many stayed in tents and caravans. After approximately one year, the majority of the permanent residents started to move into temporary houses, the so-called 'SAE' (*Soluzioni Abitative in Emergenza*). These emergency housing solutions vary from 40 to 80 square meters and in the municipality of Amatrice a total of 532 SAE have been installed where around 1500 people have found shelter (Cozijnsen, 2019). Figure 3 displays such houses. Over five years after the earthquake most residents are still living in these temporary houses, awaiting the construction of their permanent homes.

Figure 3. A row of SAE in the centre of Amatrice (author's own picture, taken in November 2021)

One only needs to walk the streets that cross Amatrice to realise reconstruction is far from finished. Two and a half million tons of rubble were cleared and carried away, yet some districts that are now uninhabited continue to exhibit the destruction caused by the earthquake. Six billion euros were spent for clearing and security work, for the construction of new road and rail connections, for the accommodation of people who have become homeless in emergency shelters and hotels, and for the construction of the SAE. But the reconstruction has hardly begun. Only 7% of the damaged houses in the residential areas of Amatrice have been restored. Many of those displaced by the earthquake continue to live in temporary houses. The old town. is still not allowed to be entered as it is a 'red zone' and consists of ruins and two scaffolded tower frames (Brasil, 2020; Rüb, 2021). Figures 4, 5 and 6 indicate the changes landscape of the main street over time. Moreover, there are problems with the reconstruction in terms of the emergency houses (SAE), since it was not taken into account where people were living originally (Cozijnsen, 2019). However, the problems with reconstruction are not the consequence of a lack of donations.

Instead, there has been much international attention for the earthquake and many donations were collected. This was caused among others because Amatrice is well known as the base of the internationally famous spaghetti all'amatriciana. This resulted in an initiative 'Una Amatriciana per Amatrice' where for every dish consumed, €1 was donated. It was led by founder of the International Slow Food Movement Carlo Petrini and asked restaurant owners to put the spaghetti all'amatriciana on their menu for one year to raise as much money as possible (Cozijnsen, 2019).

Figure 4. The main street and iconic bell tower (Gangemi, 2009)

Figure 5. After the earthquake, the main street was completely buried in rubble (Ranesi, 2016)

Figure 6. Once the rubble was cleared, the road system was restored where the main street became a car corridor (Fontolan, 2018)

4.2 Amatrice

Once considered one of Italy's most beautiful towns, Amatrice has become the symbol of the 2016 earthquake. Amatrice is a rural mountain municipality of approximately 2400 inhabitants which falls in the perimeter of the Gran Sasso-Monti della Laga National Park. In wintertime, many residents move to coastal areas to enjoy a more temperate climate. But during summer, second homeowners and tourists visit Amatrice and the number of people in the area can be six times as many. The municipality has 69 smaller *frazioni*[3] surrounding the town Amatrice and are scattered within a radius of 174 km^2 (Sabatini & Schiano, 2018). The territory can be divided into two spheres: the town of Amatrice where activities related to commerce and public administration take place, and the 69 frazioni that were historically established for land cultivation.

In terms of religion, most of the population are Catholics; Catholicism is a very large part of Italian culture in general and influences every level of society (Vignoli & Salvini, 2014). On a political level, there is an aversion by inhabitants. During the earthquake, many inhabitants also did not feel like they were listened to (Cozijnsen, 2019). Since the earthquake, Amatrice has seen five different mayors that have left because of various reasons. Furthermore, understanding Amatrice from a gender perspective, it must be noted that Italy ranks below the EU average. With a score of 63.5 out of 100, Italy ranks 14th on the European Gender Equality Index. Gender inequalities in Italy are most common in the domains of power, knowledge and work (EIGE, 2020). In the latter, it ranks lowest of the EU.

From a demographic point of view, villages in the Apennines historically suffer from limited development and few job opportunities, which has led to depopulation and an aging demographic

[3] A frazione (plural: frazioni) is a type of subdivision of a commune (municipality) in Italy, often a small village or hamlet outside the main town. Most frazioni were created during the Fascist era (1922–1943) as a way to consolidate territorial subdivisions in the country (Wikipedia, 2022).

structure (Forino, 2016). This trend of shrinkage has been going on for decades. Even before the earthquake, the area was considered vulnerable as a consequence of ongoing demographic decline and economic stagnation (Giovanni, 2016). At the moment of the earthquake, 25% of the affected population was over 65 years and only 12% under 14 (Sabatini & Schiano, 2018). Generations of current second homeowners used to live in Amatrice but left the area mainly for job opportunities elsewhere (Giovanni, 2016). As such, these houses are now used only as vacation homes or are partially abandoned.

Second homeowners also make up a large part of the tourism sector of Amatrice, one pillar of the local economy. The richness of this territory is priceless in terms of immaterial capital (Mela et al., 2016), such as its mountains. One year before the earthquake, Amatrice received the status of one of the most beautiful towns of Italy. It was promoted as the town of taste, and maintained this membership after the earthquakes (Cozijnsen, 2019). As such, it is not surprising that the local food production and food processing are the main drivers of the local economy.

Historically, Amatrice has always occupied a strategic role in the Apennines by virtue of its position on the Salaria road that connects Rome (on the west coast) to the Adriatic coast (in the east). Amatrice mainly relied on transhumance, a tradition that is still found today. Depending on the season, shepherds migrate between the temperate climate of the Roman countryside and the meadows of the Amatrician mountains. Sheep are used for different purposes, such as wool, meat and cheese production. Together with agriculture and the lumber industry, these can be considered the three pillars of the local culture and economy. Over time, Amatrice has built a particular bond with Rome. From the beginning of the sixteenth century the centre of Rome was the destination market for Amatrician wool. Eventually, the city became a destination for emigration from Amatrice. In the first decades of the twentieth century, this trajectory of commercial contacts took the form of permanent migration: the community of Amatricians who moved to Rome grew, taking root in the catering industry. Around the 1960s, many decided to abandon farming and livestock and went to work in Rome as butchers, labourers and bricklayers, and as soon as they could, especially in the summer, came back to Amatrice and its surrounding areas. In those years, the dazzling growth of the building stock led to a general economic development: catering activities increased and the first accommodation facilities appeared. In the same years the administration began to develop local food production, which now makes Amatrice the town famous for ‘spaghetti all'amatriciana’. The above-described process of tourist conversion of the Amatrician territory has continued for decades, to the point that before the earthquake, two thirds of the overall building of the municipality consisted of second homes (Cozijnsen, 2019; Sabatini & Schiano, 2018).

4.3 Summary

The 2016-2017 Central Italy earthquakes caused significant loss and destruction, especially in Amatrice. This can be ascribed to substandard building practices, absence of any warning, due to the high number of people crowding the area, and because the earthquake struck at night. The mountain municipality of Amatrice suffers from depopulation and an aging population. Its economy relies mainly on agriculture rooted in transhumance, as well as tourism, in which there is a large role for second homeowners. With

factual background information on the research site and the earthquake provided as a backdrop, the following two chapters will present the results from the data collected during fieldwork.

Chapter 5
Results I: Earthquake impact and experiences

The two results chapters present the key findings from the data collection. This first chapter elaborates on the experiences of respondents and is structured according to three thematic sub-sections: Amatrice, the earthquake and resilience. Women's disaster response, coping mechanisms and risk perception are central to this. A summary is provided after each sub section. The second results chapter discusses the indications of gender transformative change which includes among others the agency of women and their engagement in networks.

5.1 Contextualisation of Amatrice

This section shares the experiences of respondents in Amatrice that are not directly related to the earthquake, and does so around the following themes: demographics, politics, economy, social dynamics and local gender relations.

Demographics, politics and economy

Many respondents shared how Amatrice is a place that is good for old people, as there are limited higher education and employment opportunities for youngsters. Since the earthquake there have been five different mayors that have left for various reasons, although the most recent mayor is considered more promising by the research participants. That is, because he is relatively young and originally from the area. As a consequence of the earthquake and the pandemic which followed, the agricultural sector and tourism have been affected significantly. Someone working in the tourism industry describes:

> *'It has become more like a tele-visit. People only stay for one or two nights now. And with the covid, the relationship with the guests was even less. There is also more work, because we have to clean even more.'* (R2)

Social dynamics

Many respondents emphasised the closed character of Amatricians, which they consider also typical to the mountainous area of Central Italy. Respondents report a strong love for their territory and an aversion to people from outside, but at the same time the community lacks the ability cooperate in a cohesive manner. In addition, people that are originally not from Amatrice, yet have been living in the area for a while, emphasise how they know they will always remain an outsider. As a small community where everybody knows everybody, there is also a high degree of social control. One respondent who is originally from Rome and moved to Amatrice after the earthquake describes the following:

> *'So here, it is hard, you know. Because… Amatrice… It's like they are a little bit closed. I know that [after] I stayed here for one year, if I go to the supermarket, they [would] still call me 'madam'. This is something that I completely hate. It's one year since I came here, and they are so closed to me. I don't like it. […] It is hard sometimes, but it is also nice because you have to build the trust and invest in it. Because also the people that live in the mountains are a little bit closed. […] In Rome we are excited and start to chat. And*

here there is a separation. They are closed. […] I think about organising some event to bring the people together, but here it is very, very difficult. This summer I organised a nice market. For me, it was not difficult to organise this, because we are from Rome and we have a different mentality. And our skill is to bring the people together. This is very powerful I think. The people here do not feel like they can do that.' (R4)

An inhabitant from one of the smaller frazioni shares*:*

'I am from one of the smaller villages. When I grew up, I was a bit of a second-class citizen, because I was not from the city [Amatrice]. Even if the city is like 5 km away. You can feel it is like a leftover of the nobility time. It is like, there are different layers in the society. There is a sentiment that this is the town, and there are other people that come from the villages. And you are not from the town. But even among the town, it [there] is not such a strong cohesion.' (R1)

A respondent from Rome describes something similar:

'If you are not from Amatrice but from the fractions, or if you live in Rome and your father was born in Amatrice, they always underline that you "cannot understand how it is to live in this area… Only people who now live there are CHAMPIONS in everything and know everything, how dare you contest their word!"' (R16)

Despite this division, a strong connection to the territory is expressed very often by respondents as well.

'*I was born in Rome, but I grew up here. I spent most of my summers here. Amatrice for me is like my second home. Sometimes, like my first home because I come here to relax. I just click off my mind. Nothing is hard here, nothing is tough for me. I relax, I'd be just doing something like cleaning, cooking, staying with my family. It was beautiful.'* (R5)

Although the territory has been affected by the earthquake, it does not change the immaterial connection to the place, something which is not uncommon (see for example Blondin, 2021). This is also true for R10:

'It's difficult to understand. But when you have lived here for many years, you are not willing to leave this place. Maybe the easiest choice after the earthquake was go away and construct life in another place, in another city. But, no. They are very, very motivated to stay here. Me too. I love my home. I love this place. Maybe I am too young to just stick to such values, like 40-year-old people, something like that. Because I know that here I cannot have a life and a proper job for what for what I studied for. So I knew since I was five years old, I knew that I had to move out of here. But I really want my new home here. I don't want to abandon this place.' (R10)

Passiveness is another social characteristic of the local community that was mentioned several times, especially in relation to the reconstruction, and is expressed for example by R4:

'If you wait for the government to do this, you can wait until forever. I feel like we have a big responsibility to do this. Maybe because we are lazy, because we don't feel like it is an emergency… We have to do something. It is hard. In Italy, we have this mentality that we have to wait. Sometimes people lose the consciousness that we can change something. We can organise our life together. Also here in the little place we can do this. We lost a little bit this energy. We forget the community mentality.' (R4)

Gender (in)equality

One respondent gave an historical overview as to how she felt the local gender roles and relations are historically rooted:

'The community of Amatrice is basically a patriarchal society, because the main source of income until the 1960s was agriculture and the breeding of sheep. Women and children were subordinated to the male figure as the only representative of command/power and income. The female figures from Amatrice and the surrounding area were those who often left the town to work in the city (Rome) as service women (maids, nannies, cooks or seamstresses, midwives), and brought the money they earned back to their families in the mountains. Here in the mountain area they were not seen as mouths to be fed, but as strong arms and energy within the family, especially in winter, when the men were away. The most tiring period of the winter, about nine months, was when the women were alone in the houses and on the land. From September to June women, sometimes even with children, had to manage the house on their own, provide for food and everything connected. The women had too many primary tasks within the house to think of studying and reading, or to get an economic independence.' (R16)

Many respondents identified Amatrice as a traditional and patriarchal society. At the same time, this was contested through the notions that many women also have paid jobs, access to finances and share decision-making responsibilities.

'I feel that Amatrice has a bigger problem in the ability of acting as a community, than in an inequality in gender. I don't see big obstacles for women who wish to be entrepreneurs, small businesses and so on. Although probably a cultural gap still exists that prevents women from accessing roles that require higher education'. (R15)

'I grew up in a family of farmers, and both my mom and dad were always working. And at least the cases that I know, the farmers, both the men and women work. But, as someone that lived abroad in a country that I consider way more forward on issues like gender equality, this place, honestly, the conditions are a bit appalling. This is a very patriarchal society'. (R1)

The regional Anti-Violence Centre where Amatricians can go to, shares that from their databases, they have only been in contact with two women from the area since 2016 (R13). The fact that they have so little data on Amatrice could be both positive and negative. It may be negative because there could still be a lot of violence and women are too scared to step forward, something which is in line with the pride and closed attitude of Amatricians. This was also confirmed by R11:

'Maybe there is domestic violence, but this is a small place. So people may be ashamed to come forward, and tell, and say the words "I am violated [abused]". So in Amatrice, we have this pride, of being a place where a mother is so important. More important than the father.' (R11)

What characterises Italian families, and also those in Amatrice, is that even if they are considered patriarchal, women are identified as the main characters:

'Even if the women themselves do not take financial decisions, she's always pulling the strings and deciding. On the outside, it looks as if the man is the boss of the house, but the reality is a bit more shaded'. (R1)

'We live in patriarchal society, but in small places like Amatrice, but like any other small place in Italy, the mother is seen as the main character of the family. She does everything. Because the father, and the men of the family need work and go away for so many months, and then when he came back, they didn't do anything. The only thing they needed to do, was to bring money home. So the mothers became the main characters of the family as they did everything. This is for small places. There is this force, the strength here, which they don't have in the big city'. (R11)

Moreover, from the questionnaires a balanced result followed on the question who is considered the household head. The majority (45%) indicated this a joint effort between males and females, 23% had a male household head, and 32% a female household head.

Summary

The mountain municipality of Amatrice suffers from depopulation and an aging population due to limited opportunities for youngsters. Its economy relies mainly on agriculture and tourism, of which the latter is impacted by the earthquake and the pandemic. Amatricians demonstrated a strong love for their territory but at the same time expressed a common shortcoming to cooperate. On a gender level, the society is considered traditional and patriarchal, but the roles and relations are changing towards more equality. Women are usually considered the main character of the family, albeit inside the house.

5.2 The 2016 Amatrice earthquake

This section discusses the results related to the earthquake and its impacts, which are presented according to the following themes: emergency response, community consequences, gendered impact, age, reconstruction, donations, tourism and future opportunities.

Emergency response

Although earthquakes are sometimes predictable, the one in 2016 took everyone by surprise as there was no increased seismic activity in the days ahead, contrastingly to the 2009 L'Aquila event.

'I couldn't move. Because it was so strong. You cannot do anything about it. The moves from this earthquake were also particular. Some specialists talk about it. And they said that the waves, they went in all different directions? So not just one direction, which is more normal. Even if you want, you cannot do

anything. You cannot move, because you cannot see anything. Because of the earthquake, the lights were off. So we were just waiting there for… death maybe. And then we got out of our house. And we saw that our cars were destroyed. Yeah, because we used to park near other houses, and they were old. So we have no more cars anymore. No house anymore.' (R10)

One resident describes her memory of the first moments after the earthquake:

'When I drove to Amatrice… It was horrible… Every time you would hear that someone had died… Including children. It was a morning… I will never forget. And in the morning… I am diabetic, I filled a backpack with medicine like insulin and fruit juice, for anyone that needed it, because I knew there were people in Amatrice with diabetes. Around noon I came back here, and we kept feeling aftershocks. I don't remember everything… We were just going inside and outside, because we didn't know whether to be inside or outside. And the television was on, and every time the death count was just rising and rising. And I am usually eating all day, but I remember that I didn't eat for two days… I also can't remember drinking anything. We were sleeping in the car outside for some time.' (R9)

Not only did she go to the city centre and offer medicine, but she also stepped forward in any possible way to offer help, just like many others who were not physically affected themselves.

'Directly after the earthquake, they sent clowns, for clown therapy, to bring people a bit more together. To make contact. In the beginning, I did not like this at all. There was nothing to laugh about. What were they doing there? Of course, they had a very different purpose. There were two clowns that had been here several times during the weekend, and I had been looking at them work. Then I asked them if I could do the work too. They discouraged me, and it was actually not allowed, because they are professionals. But I wanted to do it. And they let me. I was going to do it for two days. And I was all dressed up, with make-up and I was unrecognisable. But then I was talking to people that I knew, and they did not realise that they were talking to me. And they were so open to me, like you do to a stranger. This was, very, very emotional. It was so confronting. I couldn't last the second day. I saw so much pain. When I think back of this… I get so emotional. People shared me their pain, and I never expected this. It was so confronting. So I took off my wig. I just couldn't do it anymore.' (R9)

Consequences on a community level: from solidarity to selfishness

Right after the earthquake, a strong cohesion emerged among the survivors. This was explained through the feeling of having lost everything, except each other.

'Many people lost everything, so they only have Amatrice.' (R11)

'Staying in those tents, having nothing left, we started talking to each other, which made us a bit more united.' (R10)

'Right after the event there has been a very strong cohesion among the people that were left in the earthquake. Especially in the days that we were in the tents, we were basically all arranged in campsites, all around the affected area. People were very collaborative, close to each other, ready to help for whatever,

and it was something that was very strange to experience. […] But unfortunately this situation did not last for long.' (R1)

Because after goods and other donations were distributed, according to multiple interviewees, people became greedy and starting hoarding, even for things that they did not need.

'A lot of people brought clothes, food, everything. Televisions, washing machines, everything they brought here. And they were, they were like, ants. The insects. And all they're getting, what they could. It was like, I don't know if it was sort of reaction to the earthquake, but they used to just get everything. Even if they didn't need it, even if they didn't know where to put it, they took it.' (R3)

'Completely in the beginning it was there, also the reunion with some people of which you didn't know they had survived or not, that happiness, altogether, as in "we are still here". That was very special. But then, in the sports hall here in town, all food and goods and clothes were collected, actually too much. They even had to make a call to stop donations, because there were enough clothes for 3000 people. And that's also when I started realising that people, everyone individually, started hoarding. That's when the sense of togetherness already left a bit. It was everybody for themselves.' (R8)

The individual character of Amatricians, as indicated by the research participants, returned.

'I think that maybe in the first year, the first month, after the earthquake, people have only each other. So they needed that relationship. It was the only thing they had. So they were not awful with each other. They try to work together. Then after some months, I could say even a year, after a year, they seem more selfish. Because the houses were given to some people and the SAE houses were given to some people and others had to wait a long time. And so it was, they became a little selfish. But this is the problem of Amatrice, with the people of Amatrice. They live in a place that is really small.' (R5)

However, this was not true for all. Several respondents expressed how the earthquake intensified the characters of people.

'The people that were goodhearted, are now very goodhearted people. The people that were not so nice, are now even worse.' (R9)

Nevertheless, the impact of the earthquake on a community level was negative as it caused a lack of trust between people.

'The combination of the earthquake and covid made the people so selfish and individual. It makes people feel alone, too.' (R7)

'There's not a community anymore. Alongside the town in the material sense, we lost the sense of aggregation. At a social level there have been some evident changes: selfishness increased, the people became bashful, reserved and less reactive, maybe brainwashed from everything that happened. Among aids and donations, they seem not to care about every [any] problem that may occur in the future. It seems

that the important thing is driving around with an S.U.V. waiting for who knows what gift from god.' (Q15)

One respondent describes how individuality and selfishness were apparent before the earthquake already, and how the earthquake failed to change this.

'The earthquake emphasised the flaws that existed in this 'community'. Solidarity had long disappeared in an agricultural/farming village, with no one caring any longer what happened to their neighbours. The problem is that everyone thinks about his/her own personal interests and makes no effort for the rebirth of a community that is different now and aware of what the experience of an earthquake means.' (R16)

Gendered earthquake impact

Analysing the consequences of the earthquake from a gender perspective, respondents reported that many marriages broke down. Whether that was because the earthquake made them realise their current marriage had problems before or because people dealt with the consequences differently so much that it drove them apart, many people separated. At first glance, the research participants felt that the earthquake impact does not differentiate on the basis of gender. Rather, the impact is understood as an experience different to each individual.

'I think that everyone has experienced different impacts, not depending on his/her gender. Each of us lived the earthquake differently: some were sleeping, some were still out with friends, some were in the car, etc. This already makes us understand how each of us lived it in a singular and unique way, saw different scenes. Someone saw people dying in front of their eyes and someone not. These are all things that make people react differently and, in this case, I don't think that gender accounts for much of it.' (Q13)

However, after further enquiry many respondents did in fact report a differentiated response between men and women immediately after the earthquake, where the role of women was fundamental.

'I was sleeping. I realised afterwards that I didn't feel the first earthquake, but only the second. My husband froze, and my son was sleeping between us. The moment I realised, I had to wake him up. And I took the jackets. I remember[ed] when the L'Aquila earthquake happened that people froze from the cold. So we took all the jackets that we had in the house to protect ourselves, but also the other people, like my mom and father-in-law. So they would not freeze out. I was very dynamic, directly when I woke up. I just thought about my son. I needed to get up and go away. I started driving the car, and when I was passing, the roof of one house collapsed. So I realised, 'oh god, if this happening right now, I cannot imagine what is happening in Amatrice'. I was driving, and my husband was just in the passenger seat. The strength of men… It is nothing.' (R12)

This respondent was not the only one to indicate the strength of women, opposed to the passiveness of men in the immediate response phase, who '*were totally like a zombie*' (R10). Men froze, whereas women rolled up their sleeves and moved on. As such, there was a vital role for women.

'I knew many men that responded worse than women. Because maybe this is what we always hear about it, but men are less strong than women. So I saw it with my own eyes. There were men that were afraid of everything. They could not think about making something new. They were stuck. Okay this is a tragedy, I understand. But no, you have to go on with your life. So really in this situation women told them, to let's go make something, let's go, and move on. Women are stronger. It could sound like a common thing, that women are stronger than men, but it is true.' (R10)

In addition, respondents also indicated a difference in gender on the longer term. Men stayed at home and got depressed, while women sought paid work (R2). Whereas men stagnated, several women reinvented themselves, for example a physiotherapist who became a construction worker to earn some money (R3). Moreover, some males became really introvert and closed. This was echoed by both men and women.

'I remember that after the earthquake in L'Aquila he [my brother] was scared of pretty many things. And definitely he got a light sleeping pattern as a consequence. Because I remember he was the first getting up at the night of the earthquake. I remember that very well. He was running in the corridor and telling everybody to get up and out of the house.' (R1)

The consequences of the gendered impact are rooted in local culture, according to participants. Where women do not have shame or fear to show their emotions, men do not want to be seen as sensitive, because '*the society is so patriarchal*' (R11). This has led to depression, as well as abusive and introverted behaviour in men. Men got more insecure as a consequence of the earthquake, because they were no longer able to take care of their families. This also made them more closed inside. There have been cases of suicide, and men that got abusive due to excessive drinking. Moreover, a woman was attacked on the street (P2). This reality was also expressed by Simona Giannangeli[4] on the international day for eliminating violence against women:

'Thank you La Casa delle Donne in Amatrice and L'Aquila because we have the same reality, connected and shared, the reality of the earthquake, of resistance and adaptation to a reality that has changed after the earthquake and a reality that fights against the violence.' (P2)

Age

Aside from gender, age is another aspect of social identity which influences earthquake impact on the local population. Several respondents suggested that older people tend to be more depressed, in absence of future prospects. One respondent put it in the following words:

'Depression is the only thing that I can think of the oldest here in Amatrice. The earthquake brought depression to them. Because they cannot imagine a future. Where they see Amatrice the way it was before. […] It is really strictly a men's thing. I don't know why. I think maybe it is because we have a patriarchal family, where men have to be powerful, stronger. They need to have the power of the family. Maybe it is

[4] Simona Giannangeli is a lawyer, human rights activist and co-founder of the anti-violence centre for women in L'Aquila

the pressure on them. And the pressure maybe also brings the depression. […] The depression was general after the earthquake. Also some women passed depression. They also have problems to see a future. I am talking about the eldest. It is a problem for them. They do not see a future. Depression is also for women, but mainly for men. […] Old people live here. They love Amatrice by the deepest of their soul. They are so in the Amatrice territory, since ever, they live earthquakes like that's the end of their lives. The young people maybe, see a future. My grandpa always said that he was so the depressed, he has the conception that he will never see Amatrice again, the way it was. But he always said to me, 'You will see it. You will enjoy it; you will have a home back.' (R5)

Reconstruction

There is a lot of frustration and uncertainty related to the reconstruction, caused by the lack of a long-term strategy. The pandemic also strongly influenced reconstruction. During the fieldwork period (October-December 2021), many respondents referred to a 'post-pandemic' phase, yet there continue to be social distancing rules, causing delay of reconstruction projects.

'There are some people that are strong. But if you talk about the reconstruction, it is a little bit tough. After five years… Sometimes you see that all the processes are very slow. But today I felt a bit positive, because I can see that they are working. Now, in my village, the workers stay to remove the rubble. But at the base, the problem is… You can rebuild anything, but if you do not think about a political strategy… […] We have to give people a reason to live here. With possibilities, a house. You have to be very creative. But you need organisation for this. A strategy.' (R4)

'The more optimistic forecast that I have is another five years to see this amount of reconstruction. Consider also that the pandemic obviously made it even worse, because everything in term of reconstruction has been blocked. And now, post-pandemic, there is the problem that raw material prices have skyrocketed. So even if you find someone to rebuild your house, it will be difficult because the margin for doing these activities has become much smaller. So if they can get a job somewhere else, they do not come here.' (R1)

The same respondent also compared the pandemic to the earthquake, two crises with one sheer (mobility) contrast: '*With the earthquake, you couldn't stay in your homes. But then the pandemic hit, and we were not allowed to leave our homes.*' (R1). Moreover, there is a complex issue with the reconstruction of houses for residents and those of second homeowners.

'There is no difference between building a house of a resident or second homeowners. It caused people to question this policy. Why would a second homeowner get a house before a resident? The question is a bit complicated, because if you don't give the opportunity to the second homeowners to come back here, you kill the economy, practically. And it is a compromise that you have to accept. […] If you don't give this opportunity to the people to come buy things here, or to eat there, then we are dead. Also the guesthouses, agriturismo, hotels. There are only a few. If we have more houses construction, we have the opportunity to have more people to come here.' (R10)

Nevertheless, there was one elderly lady who was less frustrated and argued instead that everything possible is being done:

'Bureaucratically, it is complicated, and in Italy this is always an issue. What is also the case is that there were many houses who were one floor taller than registered, so they had to correct this too. And there were taxes that had to be paid… etc. That also makes that it goes a bit slower sometimes. People shouldn't be complaining so much. We have had enough help. And we have received enough money. The government did a lot. The people should not complain.' (R8)

Distribution of donations

According to the respondents, a large amount of money was raised. Despite this, many residents have not received any financial compensation for their losses. Moreover, sometimes it is unclear where the money went, or it was used in an irrelevant context.

'Well yeah, this is an Italian problem. Because, these donations financed something that isn't; for example, they started to build bike lane, and this was in the region of Marche. Why? The money was for us. We were in danger. Why build a bike line in Marche? We are disappointed about this. I did not expect to receive 3000 euros from them, no. Okay. But something to be reconstructed here, yes. Why in a region that only experienced such a little bit of the earthquake? It is useless, pointless. I can't quite understand why.' (R10)

'This situation sort of escalated afterwards, because there has been money donated to the civil protection, and at some point, we didn't know exactly where this ended up. The region should have taken it because it was a donation that was done via SMS, but we were not sure where this money ended up and if it was being distributed. I am not saying it was stolen, but there is no clear trace to tell you what happened.' (R11)

However, there are also several reports of people who are, in a material sense, better off than before the earthquake. For example, there are people '*who had a very simple car before, and after were suddenly driving a fat Mercedes*' (R8).

Effects on the tourism sector

Many respondents also indicated how the earthquake affected the tourism industry that Amatrice heavily relies on, yet the identified effects are headed in different directions. It is argued that the revival of tourism has succeeded, for example by R10.

'I can also say that Amatrice has also experienced a return to life, when the Area Gusto [Food Area] was finished. And restaurants, the people, could go back to work. The people from Rome, from here in Amatrice, started to come back, just to eat an Amatriciana. For example, just on the weekend. And I remember, this was so emotional, seeing people that were coming back here, even if there was only this place and it is not beautiful to see all the rubble and ruins.' (R10)

Not only day tourists on motorbikes and mobile homes come to the disaster area for a short solidarity trip, but hikers and mountain bikers as well. They stay longer, as hiking trails and bike paths in the area have been signposted (Rüb, 2021). Moreover, tourism is no longer limited to the summer season, but has become all year round instead as people are curious about the earthquake.

'That's a great thing for Amatrice, for the people here, because they have tourists. The earthquake changed Amatrice in a bad way but for tourism in a good way. It helps people, because we didn't have any tourists during winter. But right now, we have tourists during all year long.' (R5)

However, there are also ways in which the tourism sector was negatively affected by the earthquake. For example, the tourist influx today is concentrated almost exclusively on the Food Area. From the windows of the buses, tourists can observe the ghosts of what remains of the old town, cross the two shopping centres and the SAE area to stop only once they arrive in front of the Food Area and enjoy a spaghetti all'amatriciana. The new configuration of the town is differential and exclusionary, able to benefit a few at the expense of many, favouring a type of occasional and hit-and-run tourism and exclusively aimed at the gastronomic vocation of the place (D'Angelo & Berti, 2020).

'I have seen a very unfair redistribution of wealth. Basically, one of the first things that has been done, is to rebuild the restaurants. This was a good strategy, to a certain extent, also considering that many donations this place received were for the pasta. It is famous all around the world. Of course, it was not all because of this, but, let's be honest. If we weren't Amatrice probably we would have been more overlooked. For being such a small place… This [the spaghetti all'amatriciana] has helped a lot in the visibility. This was sort of a priority. It was also a good way for people coming back and showing support and stuff like this. But I felt like this initiative went well only for the restaurant owners.' (R1)

Moreover, one farmer shared how she had to change her business, as there are now far fewer second homeowners returning to Amatrice, and it was them who knew where to find her farm.

'Now we are selling much more via shops, as opposed to direct sales to consumers, which decreased after the earthquake. Because the whole second house tourism fell away. These were the people that especially came to find us, they knew we were here. So now it is just tourists that are passing by.' (R9)

All in all, the earthquake has affected the tourism sector in several ways. It attracts new tourists, yet also makes them stay shorter. Moreover, there are still limited places where tourists can spend the night. There is less influx of second homeowners, but the reconstruction has strongly focused on tourism by the construction of the Food Area, and tourism remains an essential pillar of the local economy.

Figure 7. Poster displaying Amatrice's historical centre before the earthquake (author's own picture, taken in November 2021)

Future perspectives and opportunities

In various shop windows in town, a poster showing the historical centre and the text 'per non dimenticare' ('to not forget') is displayed (see Figure 7). This poster is shared among inhabitants on Facebook as well. On the surface, this points towards a desire and determination to put Amatrice back on the map. However, after

further enquiry, more of the contrary was found: a lack of hope and a fatalist mentality.

> *'There is lack of a tomorrow. How can you make plan, if you don't know when your house will be finished? If you do not know anything?'* (P2)

One respondent felt strongly motivated to actively participate in the reconstruction of the social relations. Not only for the community, but also for her own future:

> *'I cannot describe it, because it is something you cannot describe by words. I want to do something to help the people that have lived here, or their parents lived here, but now do not anymore, because they can't. So I want to help this land, so that maybe, when I retire one day, I can live here in peace.'* (R11)

Furthermore, it was investigated whether the earthquake has also offered certain opportunities. Many respondents indicated opportunities in the employment sector, in particular in construction work. But also other opportunities were identified, such as a realisation for the love of their territory.

> *'When I got back to the shop to collect all the stuff, I realised how important Amatrice is to me. It makes me emotional. You do not realise this when you live here, but only when something like this happens. The earthquake made me realise this.'* (R8)

Or how the earthquake has a 'push effect' on various processes.

> *'The earthquake reset the whole town. This means restarting from scratch and put in place many new competences and ideas that create opportunities for development and job creation. Because of this, I believe that there are many opportunities. However, harnessing to the best this occasion that the nature gave us is fundamental. After an earthquake a worse or better town than the previous one can rise… deciding which path to take it's up to us.'* (Q13)

> *'A positive aspect about the earthquake is that is has a push effect. It fastened [sic] processes. The earthquake accelerates all processes very much. At this point, you must organise something for the future. There is no other choice. And you must be involved in it, since it regards your own future.'* (R4)

Others describe the earthquake as making a specific mark in their lives, as a life event, and an opportunity to change the way of living.

> *'The perception after catastrophe, but also like in a car accident, that you are alive and the person next to you is dead, your perception in life is completely different. It changes everything.'* (R11)

Summary

Right after the earthquake a strong sense of social cohesion emerged among the survivors, but this situation did not last. Both on the short-term and long-term effect, there was a difference in how men and women coped with the consequences. Where more men fell into depression and stagnated, women were identified as stronger and moving forward, trying to reinvent themselves. Aside from gender, age

also played an important factor into this equation. The reconstruction of Amatrice is considered slow and is associated with a lack of planning and organisation due to the bureaucratic system, but also because of the pandemic. Tourism remains an essential pillar of the local economy but has changed since the earthquake. New people are attracted to the area, yet due to a lack of facilities, it also makes them stay shorter. Finally the earthquake also offered several opportunities, such as a push effect, although these are not comparable to the damage done.

5.3 Amatrician women's disaster resilience

The purpose of this section is to present the resilience of Amatrician women in relation to the earthquake. According to the theoretical framework used, resilience is comprised of preparedness and coping capacity. Preparedness is determined by risk perception, preparedness knowledge and actions as well as early warning. Coping capacity is comprised of access to finances, savings and assets, migration opportunities, social protection and sources of livelihood.

Preparedness

When respondents were asked whether they felt like they could have been prepared for the earthquake, or whether they feel more prepared now in case of another one, the far majority expressed that one cannot be prepared for an earthquake at all. There were varying reasons why the respondents thought so. Some expressed how that is because you cannot predict earthquakes in general, for example:

> *'Unfortunately not, the earthquake does not warn you, does not forgive you. It's an evil event, a bastard one, a murderer.'* (Q23)

Someone else related it to how one cannot prepare for any geophysical event:

> *'You are never prepared. All these disasters happen… Avalanches, hurricanes… They happen. You are never prepared for it. The emergency organisations and professionals are prepared for it, but we are not.'* (R8)

When such a natural event arrives '*one's never ready enough*' (Q14). At the same time others explicitly related earthquake preparedness to the 2016 event (Q22, Q6), stating that it is impossible simply because '*you don't have time*' (Q7). Another respondent spoke from her own experiences, by surviving three separate events:

> '*I lived the S. Giuliano one in Molise, the L'Aquila one and the Amatrice one. The earthquake always catches you not prepared.*' (Q10)

There were also respondents who related it to their psychology: '*My brain refuses that*' (Q17); and '*I don't believe we can psychologically be ready for another event like the earthquake*' (Q18). Another respondent shared the following:

'I don't think it is something that you can prepare. I think that it is really the human brain, that tries just to put aside this disaster as a self defence mechanism. You have a trauma, and you try just to put that away'. (R1)

Then there were also several respondents who expressed a more fatalist way of thinking:

'You cannot prepare for an earthquake, really. Maybe mentally a bit… Because an earthquake makes you a bit fatalistic. If it happens, it happens, and then I might die. Because otherwise you have no life left, you would never take the car or the plane anymore. That is how I see life. If it needs to happen, it will, and there is nothing I can do about it. You get a different view on life in general really.' (R9)

Someone else expressed how the need for preparation is not so high, as:

'The previous earthquake has destroyed buildings and structures, took many beloved people away. There won't be much left to take away, if a new earthquake would come.' (Q8)

Where the above respondents explained how you can never be ready for an earthquake, others shared how one can prepare in terms of housing. The role of building structures is often mentioned in the context, where the only way to prepare is to enhance these.

'It's a strange thing to say but maybe they, if they will be prepared, they will be able to build their buildings in some safer zone. But they are not prepared because Amatrice is, every zone is so much risk. It's incredible. You can't predict it. So the only way to prepare it is to build safer buildings.' (R5)

Another respondent blames the impact on the houses as well, and expresses how enhancing those will allow for better preparation:

'*We made a mistake by neglecting what we were fully aware of: it's an earthquake-prone land, it's a seismic zone, and we were reckless not to build structures and equipment keeping this in mind. I hope that we will make this change. We agree to change our house, the old part will be missing, but it must be safer and more comfortable, it must prevent and ensure that there will be no more victims*.' (R16)

In addition, '*You can only be ready with prevention, that is anti-seismic houses built properly*' (Q5), and '*I tried to prepare myself by reinforcing the house where I live with my family after the earthquake*' (Q11). This was also confirmed by another respondent:

'*I try to rebuild my house as secure as possible, to protect ourselves. Then, I try not to think about it. Because you don't know what is going to happen. We can go to sleep at night, and one hour later, wake up with nothing. So that's the problem*.' (R11)

According to another respondent, a distinction must be made between the psychological part and physical part of the earthquakes (R7). When asked whether he thought there are other ways to prepare

for an earthquake, aside from reinforcing building structures, he continued connecting earthquake safety to housing, but related it to Japan:

> *'When I went to Japan, I saw a picture of buildings during an earthquake. People were not scared. They just held the furniture in place, and they were not scared. Because they are safe. They do not have to worry about the structure.'* (R7)

Similarly, another respondent also made a comparison to Japan:

> *'What we can do, is building houses that are really strong against earthquake, as in Japan for example. They live a quiet life there. If we can reach their level, we will be safe forever. It is a challenge also because the construction companies weren't aware of these measures until maybe 30 years ago. It is so new for them. To learn how to build the strong houses. And there are so many old houses here.'* (R10)

However, according to respondents, achieving this is a complicated process that involves complex bureaucratic procedures. Moreover, there are mixed references as to whether learning has taken place.

> *'Another problem is retrofitting. The procedures to do so, are constantly changing and demanding more. They are very confusing as well. If you want a new roof now (so wood, no cement because that is too heavy), you will need new windows too, etc. In this way, it becomes a much bigger and more expensive project. In relation to L'Aquila: I mean, we could have learned from the 2009 L'Aquila earthquake, but we didn't… Because… Yeah, I guess because there is no money. And… politics. The house of my neighbours was made of stones and soil, and not cement. Of course this does not resist an earthquake'.* (S12)

When asked whether people were prepared for the event in the sense of knowing on what to do, one respondent expressed:

> *'Some people didn't know it. In fact, they stayed in their bed, like my aunt. She was woken up by the earthquake, but she didn't realise it. Because we… It's something that you cannot even imagine. You can have heard of it. You can have heard of earthquakes everywhere in the world. But you will never be prepared for something that happens to you, that happened here. So my aunt was like, frozen out in the bed. She didn't know what to do. After like, 10 minutes, she realised it and she got up and she got away. But some people, we have so many dead in Amatrice because we weren't prepared for it. People didn't know how to handle it. Didn't know that they have to go get up and get ready, to try to keep something near them, and escape. They didn't know that. So we had so many deaths. […] But now, we can be, like, prepared for an earthquake. Not mentally, not physically, but we know what to do.'* (R5)

From this account, one could argue some that learning from the experience has taken place to some extent. Another respondent now also parks her car only in spacious places and keeps an emergency precaution bag '*with clothes, shoes and other useful stuff*' (Q13).

Nevertheless, at the same time it was also expressed how no learning from the L'Aquila event took place, and that there is also no strong mindset to prepare for another event.

'They were not prepared, but they could have seen it. They built Amatrice in some zone that are not so stable, talking from a geological perspective. I don't think that they will ever be prepared for another earthquake. I don't think they have the strength of the mind, the mindset to be prepared for it, for another earthquake.' (R5)

Another respondent explained how she is very thoughtful, as still no new structures and rescue procedures suitable for a new disaster have been prepared.

'There are no specialised and experienced people that would know how to activate a suitable first aid procedure. Ways of communication, water pipelines were not repaired. There's still no fixed phone lines [land lines], only cell phones. No emergency and rapid response plans were organised.' (Q8)

There was one respondent who referred to her religion, and therefore only has acceptance of what happened (Q3). Moreover, the ability to prepare for the earthquake was limited by the fact that there was no warning for the event, and consequently no short-term preparedness actions such as evacuation could take place.

'In L'Aquila they were experiencing smaller earthquakes for days, weeks, maybe. But not here. It was very, very unexpected.' (R10)

Risk perception

Respondents were also enquired about their perception towards earthquake risk. Risk perception influences preparedness and may thus also affect resilience. In general, there is a lot of fear among the research population. When asked how questionnaire respondents perceived the risk of another earthquake, 16 out of 22 respondents directly referred to 'fear', 'anxiety', 'scared' or 'alert' in their responses. Two others indicated how they choose not to think about it anymore. Someone else shared how well aware he was of the risk he was at:

'Personally, I was perceiving the matter before it happened. Amatrice and its surroundings, as any other historical town in seismic zones, are like powder magazines powder kegs ready to explode. You can't live in such contexts, towns at risk should be evacuated before these things happen. After that, it's like Russian roulette, we can only count the deaths. It will happen again. Where? Who knows!!' (Q15)

Just like this respondent, but whose risk perception is determined by the house that she is living in.

'*Here an earthquake is not strange. For sure there are people that feel this. But now, we do not have a risk. Because we stay in the house [SAE] that cannot collapse. This is my feeling. Now I am not scared, because my house cannot break. But for sure, also for the older people, they feel this. At the same time, they feel like they cannot lose anything, because everything is already broken*.' (R4)

Another respondent refers to the SAE as well and indicates her risk perception decreases as time passes.

'I can tell you that I feel safe staying in those houses, because they are safe. But if I think that, maybe in five years, six years, I will have to stay in a new house… A bit of myself is scared. Because you never know what's gonna happen. Yes, they are building these new houses with all the safety measures, but you're never sure. I feel that as time passes, I am less afraid of it. So I think that maybe in 10 years I won't be afraid anymore. But maybe 1% of your brain will always think about it. But time really helps much.' (R10)

Someone else has a more fatalist way of describing risk perception: *'Another earthquake can always happen. But everything that could collapse, has already collapsed, so I am not so scared anymore'*. His girlfriend adds to this: *'We cannot control the nature, so we just wait'* (S12). At the same time, it is described how there is now increased awareness for earthquake risk:

'There is more awareness of the risk that is being lived with, and also more awareness for resilience – because it is now a necessity.' (S6)

Coping capacity

Another way to study resilience, is through considering the coping capacities of people. Resilience and coping capacity are not similar concepts. Whereas resilience relates to building back (better), coping capacity may entail consequences that are different to the situation before and not necessarily for the best. As a consequence, the outcome differs (Gaillard, 2010). People cope differently in the event of a calamity. There were women that needed to handle their fear during later tremors as they chose to stay in Amatrice. Their focus was on trying to provide their children with a life as normal as possible (Q10). Having a crucial role in caretaking after the disaster demonstrates resilience. Others coped with their continued fear by taking possible small matters into their own hands:

'I even changed the position of my desk, so I am closer to the door. I am faster outside like this.' (R9)

One respondent narrated how it was very well possible to get by after the earthquake if there is the continued possibility to work as a famer, having a house and support:

'I mean being a rural area and due to the fact that most of the people that come from here generally were coming from a farming family or other activities in the countryside. Some people went back to this and managed to survive. With the fact that you receive a free house after the earthquake, you do not pay bills. In another case, if you have a house you receive some money. If you add this to farming or growing some vegetables, it is not too hard to survive. You can get by. You can get help from the people around you as well.' (R1)

Another woman argued how she managed not to get disheartened by the earthquake and got her stability and life from before the earthquake back (Q23). Someone else demonstrated agency and resilience as she explains her attempt to return to a better life than before:

'The earthquake was such a big event that it made me (at least in my case) realise that I couldn't just sit back and wait, or see what others decided for me. It made me and many others realise that we have to act and try to achieve, or explain what you thought was feasible, fighting together with other people who had

the same ideas as you, who shared the concept of achieving change. Or rather the attempt to return to a better condition and that represented what I had lived and shared, what my father told me about his childhood. He taught me to respect this place.' (R16)

When I asked a respondent whether there was a difference as to how men and women coped with the consequences of the disaster according to her, she initially replied how she did not think so, but then elaborated with the following:

'The women are strong. They are not weak. Maybe the women are stronger than men. Because the men are protected by their mothers. This is really a true fact about Italians. The man is the boss. Although he isn't in my house.' (R3)

Many women also considered themselves resilient. It is her sense of place that determines her resilience.

'Yes, [I am] absolutely [resilient]. Resilience is the motor of everything. Of the projects. Of the future. I believe in this place. I believe in this territory. I promised my daughter this. I promised that I would give her this feeling back.' (R6)

Migration

One coping strategy that was relevant for many residents in Amatrice, was migration. Due to an absence of job opportunities, many people left in search of opportunities elsewhere. Contrastingly, there were also many people who decided to stay because of their strong connection to the territory. This is expressed by the following respondent:

'The major part stayed. It is because they have their roots here. It's difficult that they'd go away from here. […] My first son lives in L'Aquila, but he loves this place. L'Aquila is much better. It's a little city, with a big university. But as soon as he's got free time he comes here.' (R3)

Another respondent explains how he clearly saw both situations happening:

'I have seen people with families and small kids that would have been better off to go somewhere else. Because one of the parents had a job elsewhere. You are better off than the people that were totally dependent on this place, because you still had an income. But even in this case, I have seen some people that decided to stay. But I have also seen people that have left, for the same reason. If they had a house or an income somewhere else, they decided to leave. And I don't think that they are coming back. It could be retirement time, that they get the house.' (R2)

The majority of respondents explained how many people moved away. Especially youngers left the city and moved elsewhere quieter (Q8). Depopulation is not new to Amatrice, but the earthquake certainly reinforced the process (P2). One respondent talked about her mother, who initially left but came back as soon the SAE were ready:

'She [her mom] decided to leave for Rome and stay by my aunt. And she was there till June, because then there was the possibility to go to hotels in the sea. Because these hotels, were offering some beds for us. And from June to August, she was there. Then I came back from Erasmus. And in September, we received the little yellow house [the SAE].' (R10)

The following respondent also explains how people migrated for various reasons and how this is a very difficult and courageous decision:

'Many friendships, marriages, relationships were interrupted after a while, they could not stand the stress of such a devastating event: families split up because members did not want to stay in Amatrice or because of their children's needs moved to other cities; some tried to find a job elsewhere to forget, but... to be able to forget and not suffer, you must have the courage to take all your energy and transfer it into something positive, building something new and sharing the place where the interruption of that life occurred. It's not easy... you have to keep the memories as belonging to another life, and... never ask yourself the question: what would it have been like if there had been no earthquake?' (R16)

Another interviewee gave a more gendered response which relates to how men and women coped differently:

'Women were more flexible and resilient. And I found one example that is a bit closer to me. She [a friend] went away from here because she has a house in another city that they bought before the earthquake. She went to do a job that was enough to provide for the family, while the husband stayed in the house and was not doing much and got depressed.' (R1)

Alternatively, R4 expressed how migration was very much individually constructed, and depended on factors such as how much loss was suffered and whether there is a family to take care of:

'If you do not have a reason to stay, you go away, you know. For the young people it is really hard to stay here. So I think that the reaction is very different, if you have a family for example. If you have something to keep you here... If you are very free, I think the earthquake... Also, if there are people who lost a lot of people in the earthquake, I think it is okay to say: I cannot do it, I am going to stay in another place. It is different when you have a family, because it gives you structure. For sure, it is something very personal.' (R4)

Control over finances, savings and assets

Having access to finances and savings may also enable resilience. For several families in Amatrice, both adult members of the family earn incomes and thus have access to finances and savings. Alternatively, they share their incomes. In the family of R12, both have also always worked:

'Yes we both did and still do. I have a shop, and he is a gardener. So we each have different jobs.' (R12)

Moreover, it is argued how there is a need for two incomes to sustain a family.

'It's been it's been ages that most of the women are working. There isn't like, I think it's also because there are reasons such like, jobs are not that good to be enough, if only one person works for a family, basically. But of course, it is for independence, like individual independence. And also for what I said, like, it's really hard. If you've got an average job, to be able to grow up a kid, only one person, like you need to have like a really good job, like, good in the sense of you have to earn you have to earn a lot and it's not that easy. So like the people who are having kids is most likely to be 36 or 37. And they've got good jobs. They're still being helped by their families a lot. So there are a lot of families who are being helped by like grandparents, for the rest of their lives, probably till they die.' (R13)

The above demonstrates the importance of social protection as well. There were other families, where women did not work before. Because of the earthquake, they had to find a job. Consequently, the earthquake increased their resilience.

'Some families had some difficulties to recover from the earthquake because of work. Because they lost their work. And maybe some women that before didn't work. Now they have to work. I think that it was a particular point in life of people. It changed something.' (R10)

Having access to finances goes hand in hand with having control over assets. Some women expressed how they now have control over more assets, but at the same time the general sentiment of the great loss of houses is shared. Moreover, shop owners have lost their businesses. Nevertheless, there are stories of people who are now better off than before the earthquake. For instance, in terms of the car that they are driving (R8). Finally, one striking reaction from a respondent was as follows:

'From the earthquake I've learned that nothing is entitled to us, that we own nothing.' (Q3)

Income sources

The earthquake affected people's ability to work. Switching jobs is a coping strategy and enables resilience. Many people's jobs were lost as the historical centre, where most commercial activities took place, was demolished. As shared before, the loss of employment opportunities also caused many people to migrate. However, this respondent emphasises how she saw something else instead:

'After the earthquake, a lot of women came back here. Also young women. And they decide to open a farm. There are for example three sisters, that are producing saffron, and they also produce some herbs. There is also a woman who became a baker. They are very strong, because they decide to open something, stay here, and work. So this is very nice. Then there is also the Casa delle Donne [the women's house]. So yeah, for sure after the earthquake there was a 'rewake' [reawakening], something like that, where the people tried to stay here and do something. A community feeling. There was a process in this direction. In particular the women, because I think that the women try to keep all the pieces together.' (R4)

Farming families, whose house nor business suffered too much damage, were also able to continue what they were doing, even in case if slight adjustments needed to be made.

'A lot has changed, reorganisation of the company, because people left. Before the earthquake, my brother and I did the sales on fairs and markets. But as the workers left, my brother had to get back to working on the farm. Before the earthquake, I mostly worked with the second homeowners, in the weekend. But after the earthquake, this road became the main road to Amatrice, so we started working all week long, and not only during the weekend, for direct sales.' (R9)

Government support

With regards to government support, it remained unclear what the exact preconditions were for people to receive financial support from the government. There were respondents who received financial aid, but also some that did not, even though they felt entitled to this. There were people that got a new car for example, one that was much more luxurious than they had before (R8). Other contributions were given to make temporary fixes to the house or to get by for the first year as employment was not possible. Some are thankful: '*thank you, Italy*'; others are frustrated as they received '*not even a cent*'.

Intersecting aspects

Generally, it was difficult for respondents to indicate themselves whether they saw a difference with regards to gender. Instead, many respondents highlighted how they noted less resilient behaviour among the elderly. According to the respondents, in absence of a long future ahead, elderly residents struggle to see a reconstructed Amatrice and are thus more inclined to get stuck in the tragedy instead of bouncing back.

'Because this situation will last such a long time, the elderly see no future. There is no hope for them. And many elderly men and women are dead, because they could not pass the tragedy, because they knew they would never see Amatrice anymore in the way it was before.' (R6)

According to several respondents, besides age, having a family was seen to affect resilience as well. For example R10:

'Maybe older people, they find less strength than us. Because I have all my life ahead of me. I have so much to think about, like my work and where I want to live. While older people, they don't know if they will ever see their houses again. I don't know, it is difficult to explain. Also, the fear is bigger for them. [...] I also talk to older men. They are afraid of it. Maybe some men are afraid than women. It depends on you. Maybe for my mom also, it is different because she has a daughter, and with that you feel more responsible. We are alone, young, fearless.' (R10)

Summary

The majority of women participating in this study consider themselves resilient. Women found different pathways to reduce and cope with the impacts of the earthquake and were able to do so independently. However, they are not resilient in that they feel able to prepare for an earthquake. This accounts for women, but also for men. In general, respondents are aware of the earthquake risk, but perceive this with a lot of fear. Their risk perception is also influenced by the substandard housing. One coping strategy of respondents was migration, which did not seem gender sensitive but rather based on other

contextualities such as employment opportunities or moving needs of children. It also depended on how much loss was suffered and the social protection around them. Generally, women seemed to have equal access to (financial) resources as men. Some women had more of this compared to before the earthquake, for some there were no changes. For example, they were either doing paid work before the earthquake and still do so now, or did not and continue not to. Many residents of Amatrice had to find sources of livelihood elsewhere, whilst farmers were usually able to continue their work. Resilience is affected by family structure and age as well, where having children could make you more resilient and being older could make you less resilient.

Chapter 6
Results II: Indications towards gender transformative change

This chapter seeks to set out gender transformative changes that have appeared since the earthquake. It does to by elaborating on several themes that came to the fore which indicate such changes. The chapter starts with a discussion on women's post-earthquake agency. There are many ways through which agency manifests itself, such as through social networks and collective/individual action, strategies or initiatives. Women's agency in disaster can initiate changes in gender relations, enhance resilience and lead to gender transformative changes. Subsequently, other indicators are discussed, such as increased organisation in networks and associations, more independence and leadership capacities, and consciousness of gender and power relations. A summary is provided at the end of the chapter. After that, the results are interpreted in the discussion chapter that follows.

6.1 Self-perceived agency

One way to analyse women's agency as considered relevant to this research is through an understanding of agency as the ability make independent decisions, the self-perceived ability to achieve these, having a plan to act towards goals in life, and the self-perceived ability to make a difference. Respondents were asked to rate four statements (A-D) from 1 (strongly agree) to 5 (strongly disagree). These four indicators were stated in the questionnaires and are supported with statements from interviews. The results from female respondents (n=20) after quantitative analysis are demonstrated in Figure 8.

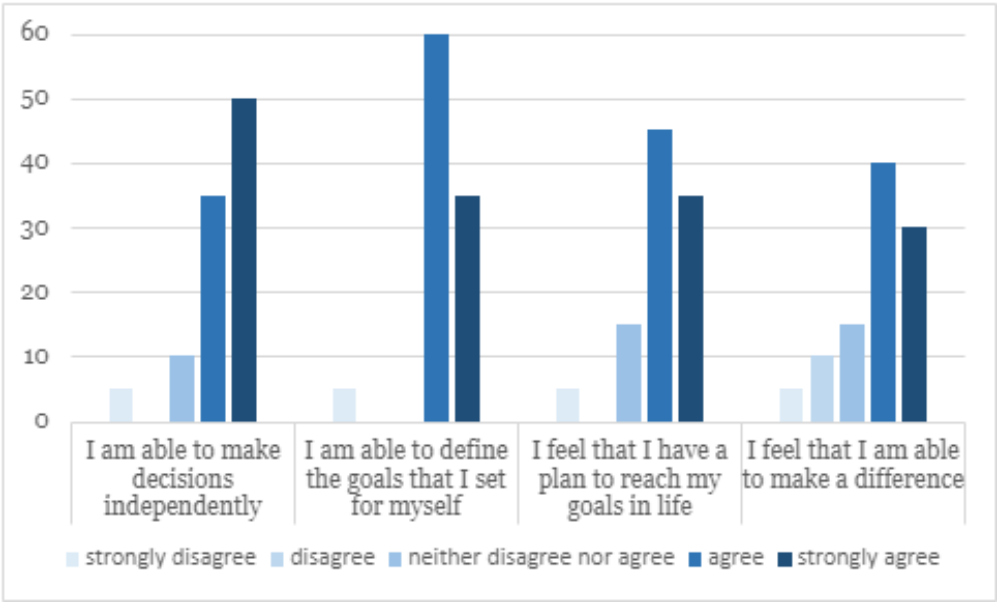

Figure 8. Women's insights on their own agency: results from survey

From the graph it follows that women ascribe themselves a high degree of agency. However, it can be questioned whether a woman would perceive herself helpless or in absence of agency. For statement A ('*I am able to make decisions independently*'), 17 out of 20 respondents agreed or strongly agreed. This indicates that they feel like they can make decisions independently. According to R5, this has improved significantly over the last decades. For statement B ('*I am able to define the goals that I set for myself*'),

there were even more respondents who appropriated themselves to these categories, namely 19 out of 20. Nevertheless, less women 'strongly agreed', and more 'agreed', contrary to statement A. Furthermore, women reported feeling capable of defining their own goals. However, according to R4, due to the closed character of the mountain people in Amatrice, it is difficult to set goals that regard others.

> '*That is because people are more individual[ist]. In other places, a stronger energy of community is experienced, while here, it is very hard to organise something and bring people together. People do not feel like they can do that.*' (R4)

Statements C and D follow this trend, where the majority of women agree or strongly agree to the statements, yet there are more who consider themselves neutral or disagree. R4 narrated how she feels like she has a plan and many ideas. However, she contrasts this to the rest of the population:

> '*I don't feel that here they are conscious about the future, like the coming 20 years. They live more in the moment. But it is very important, also in the political world, to see this place after 20 years. Everything will change. The situation is critical. This area could be a possibility to change something. Also for a real transition. But the plan is lacking for this.*' (R4)

With regards to the self-perceived ability of women to make a difference, R5 argues how she feels that women of her mom's age (around 45 years old) are (normally) very dependent.

> '*After the earthquakes, this changed. There has been a strong mindset for women to be independent and try to put goals to their life. To their Amatrice life. Maybe the oldest women have some problems with this. That they are so influenced by their husbands, that they can be influenced by that. It is an age difference.*' (R5)

It is important to consider how in terms of sex, women are a homogenous group. Yet within this group, there is heterogeneity regarding social characteristics such as age, religion and social class. In the research context, specifically age came forward as a factor to determine agency. Young people emphasised how their age allowed them to envision a future, make decisions and act towards these. At the same time, they mentioned how this was different for older people. This was echoed by several elderly respondents too. Age and agency are therefore also linked to each other, where the older population tend to have less agency than the younger generation.

6.2 Capacities, knowledge and skills

The matriarch archetype that exists within the patriarchal cultural of Amatrice demonstrates that women are considered very strong, especially within the household. The 2016 earthquake elucidated how capable and resourceful women were. From the immediate responses to the earthquake impact, a strong constitution of agency could be identified among respondents. For example R9, who filled a backpack with medicine and fruit juice for any person that needed it because she knew there were diabetics in town. Another woman, who turned out to be pregnant during the earthquake without her

knowledge, was forced to give herself injections during her pregnancy in the temporary camps, in absence of a hospital. Moreover, she took care of her colleague and friend, who isolated himself after the event:

> *'I tried to reach for him, to invite him to be with us. One time I asked him to help me with my computer and I invited him for lunch, because there were psychologists as well. So I told them that there was someone coming that needed help. He continued to go to them every day, for lunch. So he got help.'* (R12)

There were many other female respondents who were acting independently after the earthquake. An elderly lady explained how '*we just had to roll up our sleeves and go on*' (R8). She arrived to the agriturismo in Amatrice after she escaped from her collapsing building complex. She drove down there and started to help out supporting the guests and doing cooking and cleaning activities. The town mayor had requested for the agriturismo to remain open as it was one of the few structures to remain intact. With the help of this respondent and some other friends, this became a collective mission.

Another woman narrated how hard she had been working since the earthquake '*for the people that did not see the sunrise the next morning*'. Everthing she does, such as her involvement in various committees, she says, is because of these people.

> '*Only the work to rebuild can make you feel involved in the new Amatrice of the future. Because now, there is no Amatrice. There is nothing. Everyone should be involved in it.*' (R14)

She is taking English classes and is involved in reconstruction by creating rules and laws in het capacity as lawyer. According to her,

> '*Politicans can be useless because they like to talk, say things, promise things, but they do not actually do a lot. But a lawyer knows the rules to rebuilt, and they can actually do something and not just talk. […] Lawyers have the power and knowledge to rebuild the city.*' (R14)

Some communities (including second home owners) scattered in various frazioni developed spontaneous self-managed solutions while waiting for the SAE to be built, in order to not to have to leave the territory (Sabatini & Schiano, 2018). This aligns to the several respondents who emphasised how the earthquake gave an opportunity to reconnect with their orgins, and how much the attachement to the territory was revalued. One respondent expressed how she loves to meet new people and organise activities, which she also did after the earthquake. Her plan now is to build a path between her frazione and Amatrice. This will physically connect the two places, but also serves as a metaphor to connect the people (P2).

> '*It is very important, because they are separated now. The people with the second house, forget the village. These places die. It is very important to try and keep alive this place. Give it energy.*' (R4)

However, she argues:

'Sometimes people lose the consciousness that we can change something. We can organise our life together. Also here in the little place we can do this. We lost a little bit this energy. We forget the community mentality.' (R4)

So even though she feels capable to enable change, she feels this mentality is not so much shared among the rest of the community, which in her view she needs to be able to accomplish change.

R6 argues that the women have a unique power, of which the crafting skill it is a very important thing that only women have. Moreover, she contends how the earthquake has brought up the traditions of the territory. However, she explains how it has become more complicated now.

'Try to bring people that are very focused on their own thing, so jobs and housework, their own future. And try to make them see their potential. Try to bring their potential out of them. This is a bit complicated. But little by little we can try to bring this out of them.' (R6)

Moreover, from the questionnaires it followed how someone gained the capacity to adapt to situations (Q6). Another respondent expressed the following:

'The earthquake taught many people how to get by on few things and few resources. When you have nothing to lose, you are satisfied with what you have.' (Q20)

Contrary to capacities, not many respondents experienced an increase of new knowledge since the earthquake. One respondent mentioned how because of the earthquake, she now knows how strong she is (R12). In this sense, awareness of personal strength is obtained through the traumatic experience. Another woman identified how she now has a greater knowledge of the territory and the communities surrounding Amatrice (Q9).

In terms of skills, one respondent clearly pointed out how women try to put their skills together and create something good together. She refers to a shop in Amatrice, which used to be a regular shop but is now focused on selling merchandise of the town:

'The women that work there, put their skills together, responding to the demand of tourists.' (R5)

Someone else learned to be more thoughtful towards others (Q20). Another woman lost her job due to the earthquake, and consequently decided to enhance her crafting skills by following courses in other Italian cities. She bought a loom, learned how to use it and explored her creative side. After a while, she found a new job in the catering industry which made her feel strong and happy (R2). Nevertheless, she also argues how:

'There wasn't much of learning new skills. Honestly I cannot think of anybody reinventing themselves. But there have been several people that started an activity.' (R2)

6.3 Organisation in networks and associations

After the earthquake, many committees were created to try to speed up (government) processes and procedures for reconstruction (R6). Several respondents take part in such committees, associations and organisations. Before the earthquake, there were no such associations, except for the local tourist organisation, the 'Pro Loco'. As expressed by R6, that was simply because there was no need for anything else:

> *'This was a place for holidays. We didn't need it. We didn't even think of it.'* (R6)

One of the organisations that was established after the earthquake was La Casa delle Donne ('The Women's House'). The motivation for this group derives from a common desire: that of creating a place where the women of Amatrice can freely put their creativity into action. It is a place where more generations will meet to rediscover ancient traditions and discover new skills, to create a multifunctional centre where knowledge, art, imagination, craftsmanship and the economy are combined. It is argued that is because 'Amatrice must also start from its women, who are personally involved in the social and economy of their territory' (La Casa delle Donne, n.d.). The goal of the project is to organise economic activities for the women who stayed after the earthquake. It is about demonstrating that there is more than the city life (in Rome) and that by using one's creativity one can have an economic purpose. The area of Amatrice is rich in resources, and it is the project's goal to also show these. Besides an economic purpose, it is also pointed out how the association has a social and psychological purpose:

> *'The earthquake killed all social activities. This also gives women a little sense of normalcy, spending some time together with other women.'* (R16)

Additionally, it is a place for listening. The association is pursuing the idea of becoming a listening centre for women and hope to make the local population understand their way of acting both materially and immaterially for the community. They want to make Amatrice known from another point of view than solely the earthquake but focus on how to react and move forward instead. When board members were asked why they felt the need to start this project, isolation and patriarchy were identified as the main causes as women risked isolation after the earthquake. With the association they want to teach women skills such as baking and crafting, so that they can become economically independent (P1).

> *'It is a place for women to meet, to train, and to pass on the traditions of the territory. A way to give it a future.'* (R16)

The association is considered is a success by respondents. Nevertheless, one member highlights how the situation is very complicated right now. That is because it is difficult to bring people that are very focused on their own things, such as jobs and housework, to see their own potential and future. She narrates how it is a complicated process to make women see their own potential and bring it out of them (R6). Several respondents pointed out this organisation shared how their content with it. For example, R5's perspective:

'They are trying… And I think that they are doing it… They are putting Amatrice on the map. They have a concept. And maybe La Casa delle Donne can help with it. They know much more of Amatrice. We are not only a destructed place. We are much more. And this is what La Casa delle Donne is doing.' (R5)

Next to that, it is also appreciated of being an organisation where '*there are human beings that are here for us'* now that there is no need for food and materials like there was in the first period after the earthquake. In addition, it is considered a group that tries to put the local economy together (R11). The following respondent also appreciates the presence of the association:

'*La Casa delle Donne is important because it affects people in the best way. They have a huge impact on women's life. Every woman that needs a project for the future, has it thanks to La Casa delle Donne. Everyone that maybe wants to do something to help, crafts, could do it thanks to the association.'* (R12)

Another respondent expresses how she and her mother love the project but are not involved, simply because there is no time for it, since they are both working (R10). The respondent below is in fact involved in the project, but explains how there are difficulties that arise, too.

'I am trying to find the motivation to create new group of this community that is much more united. And I am working for this. With the La Casa delle Donne, it is a beautiful project, and it has this aim. It is very difficult to make the population of Amatrice that was ruined by the earthquake, to understand this. To have them understand the aim of La Casa delle Donne. That is because they are very individual, selfish, closed in their homes with families. My vision and also that of others, is to create a collaboration between everyone in Amatrice.' (R6)

In addition, R12 shared how another difficulty arises in that different associations compete with rather than complement each other.

'I am a member of the association of all the shop owners. Naturally, La Casa delle Donne has more impact on the community. Sometimes, it gives a bit of discussion because it is a huge organisation that has done something for the community. We are doing something for them, but with that also comes a bit of jealously from the other association. Sometimes, the two don't go very well together, and I am in both of them. It causes friction sometimes.' (R12)

There is some competition in general, for instance with local farms, instead of cooperation (P1). That is also because there are people who think that La Casa delle Donne has selfish interests.

'*I believe that our association has changed something in the community, in particular in some women. Unfortunately, we are seen as a bit 'freaks', but we started with a great desire to do without previous instructions, without experience, and we found ourselves as pioneers, working always with what we had available at that time.*' (R16)

Next to La Casa delle Donne, there were several other committees established post-earthquake as well. A member of the 3:36 committee explained the following:

> *'The committee started its activity right after the earthquake, and initially many people showed interest in forming a group of citizens who could/would supervise and address the reconstruction process. But soon it happened that "locals" preferred to establish a one-to-one relationship with local authorities, with a sort of feudal attitude. In the end, the committee was mainly on the shoulders of people who did not live in Amatrice, but in Rome instead (second generation emigrants). The explanation that I give of this, is that first of all, locals were more emotionally involved and inclined to depression, having lost their normality, while the others, having a home to return to, were actually more inclined to think in a constructive way. And on the other hand, the "Kingdom of the two Sicily's" mentality remains well rooted in local society, and pushes people to seek the personal favour of the authority instead of constructing a collective conscience.'* (R15)

After five years of activity the committee has managed to gain high credibility, but mostly with the authorities and less among the population itself. Another member of this committee expressed how her strategy to cope with the consequences of the earthquake, was to engage herself in multiple networks.

> '*I have begun to deal with the problem of reconstruction, so I became vice president of the 3:36 committee. There is only one way for me to overcome this kind of event, it is not to live elsewhere, but it is to work for reconstruction. It is a way of moving on. Staying in the place and helping*.' (R14)

This respondent describes the strength of women and their essential role in holding everything together through participation in networks:

> *'Try to participate in everything that is going on. Maybe not everybody is happy with it, not everybody understands… But if you participate and collaborate with each other it is what makes the difference.'* (R11)

Another respondent is a retired male who co-founded the organisation for the elderly of Amatrice. This rather big organisation was established long before the earthquake and was well-known among the community. After the earthquake, the organisation has significantly decreased in size and the respondent is no longer involved in it.

> *'Before the earthquake… It was a very important place, because elderly could learn so much [many] different things. Like learning how to use the computer, and to do theatre, dancing, gymnastics. It is very important. We had meetings with grandmothers to learn to the young children to make some crafts, to work with their hands. […] There are less people right now. Many people died, many people left the place. So there are less people that can help and participate. So it is not less important, but there are less people.'* (R7)

6.4 Leadership capacities

Organisation in networks and associations aligns with increased leadership activities of women. In addition to the respondents expressed in the section above, there was one questionnaire respondent who expressed herself engaging in a leadership position since the earthquake:

> '*After the earthquake, me and a group of friends founded an association to help families struggling. We set up many events to raise funds and use them for critical situations*.' (Q20)

Another respondent shares how she does not see big obstacles for women who wish to be entrepreneurs. She shares how she surely sees that there are a few women in leading roles now but could only think of two examples. She argues this is a result of the local culture:

> '*Probably a cultural gap still exists that prevents women from accessing roles that require higher education*.' (R15)

But in addition, she argues how:

> '*Amatrice has a bigger problem in the ability of acting as a community, than in an inequality in gender.*' (R15)

6.5 Power (im)balance

Awareness of gender and power differences is another indicator that can lead to gender transformative changes. Many respondents shared how they felt there was a power difference between men and women in Amatrice, but that this was not true in their own case. The town is considered rather traditional among respondents, yet at the same time both men and women work and run the household jointly. According to respondents, gender inequalities have declined over time in Amatrice. At first glance, therefore, there do not seem so many problems on a gender level. However, there are also hints that direct otherwise. For example:

> '*I think that by now families are quite balanced. However, maybe, in some families men have more power*.' (Q13)

Someone else argued it from an employment perspective:

> '*Not in my case. However, I think that Amatrice is still a town that gives few [little] space to women, especially from the point of view of employment.*' (Q23)

6.6 Independence

All female respondents displayed a range of independence. Several women expressed the importance and joy of being able to work after the earthquake and deriving strength from this. Someone else expressed how the earthquake might have influenced women's independence:

'Maybe for the women, yes. They were in a situation before that they didn't like. Maybe with the earthquake they realised, 'why do I have to be here, with somebody that I don't like, or does violence to me, or treats me in the worst way, I don't have to be with him'. Maybe, this is something that opened their eyes, their mind. But independence… If you were economically independent before the situation, you are also after the situation.' (R11)

It was also mentioned several times how life as a farmer is not limited to men, but that such a business is run both by men and women. According to R4, it is these women who are especially strong:

'*In particular the people that work on the farm, because they are very powerful and strong to continue their job and try to grow and build the relations with consumers. To open up.'* (R4)

One elderly woman describes how her independence was not affected by the earthquake:

'I have never been married. I was a hairdresser. I was already retired when the earthquake struck, but my whole shop collapsed. I was still working at the time, because I did not really want to retire. But everything was broken because of the earthquake, because the shop was in the historical centre. So we just had to roll up our sleeves and go on. Later, some bars and other shops were moved into the small shopping centre, and they also decided to reopen my shop. When I got back to the shop to collect all the stuff, I realised how important Amatrice is to me.' (R8)

But someone else expressed how independence is influenced by age:

'*My mom, she's very independent. She has her own mind. She thinks with her own mind. She is not influence by anyone or anything. If she wants to do something, she does that. I think that women of her age here, are very dependent here. Very dependent. After the earthquakes, this changed. There has been a strong mindset for women to be independent and try to put goals to their life. To their Amatrice life. Maybe the oldest women have some problems with this. That they are so influenced by their husbands, that they can be influenced by that. It is an age difference.'* (R5)

Another respondent demonstrated much independence in her drive to help others:

'So I start with house, that was not my home. I had 60 people living with me. There were people that couldn't help, I did the job. But first for my parents, so they can have a proper house. But we don't live there yet. Then with the Red Cross. I do volunteering. Then of course my own job. And then also, I do counselling. I work in the municipality. I try to help, until 2019 I worked there. We tried to improve something in Amatrice, because Amatrice only lives of tourism. So now, in this moment, with my friend, we try to build a place for with Christmas, for the children. Well not only the children, but also for all the people that love Christmas. We love Christmas, so we try to assemble this place, also for the tourists. Because Amatrice lives off tourists. If Amatrice is dead… We cannot live without the tourists. So we need to do something to improve, and try to bring the public to us.' (R11)

6.7 Opportunities

Despite tragic losses, the earthquake also offered opportunities that indicate gender transformative changes. For this woman, it meant the following:

> '*The earthquake was such a big event that it made me realise that I couldn't just sit back and wait, or see what others decided for me. It made me and many others realise that we have to act and try to achieve, or explain what you thought was feasible, fighting together with other people who had the same ideas as you, who shared the concept of achieving change*.' (R16)

This respondent shared how it made her more socially engaged:

> '*In my particular case, the earthquake gave me the opportunity to get to know my community better. Before, I would have stayed in my closer friends' circle.*' (Q9)

For others, it was about personal perception and growth:

> '*Personally, I learned to get to know myself for real… the strength… the courage… the ability to adaptation that I didn't think I had.*' (Q10)

> *'Definitely, the earthquake makes you a stronger person, it teaches you to adapt and live with few resources and less comfort. It teaches you to share what you possess. And, foremost, it teaches you to be altruistic and selfless because many people helped us without even knowing where our town was before the day of the earthquake. They left and came to help anyways.*' (Q13)

As explained before, the earthquake also offered various employment opportunities for both men and women. Jobs were sometimes provided by associations (Q16), or opportunities arose especially for youngsters in the reconstruction sector (Q18). Another respondent shared:

> '*Yes, I think that the earthquake has created big opportunities for some people, especially by the point of view of work. For example, my sister and his [her] husband didn't experience damage to their home nor to their antique shop and managed to set up a new business. They opened a café, the first café in the middle of nowhere. With this, they manage to recreate a meeting point and give back a bit of the normality that was there before 24th august 2016*.' (Q23)

Finally, another respondent narrates how her life got more stable since the earthquake:

> '*When looking at tragedies, one always tries to look at the least negative side. As far as I'm concerned, my life is drastically changed. Before 2016 I didn't live stably in Amatrice. After that, to stay closer to my boyfriend, I moved in. I changed my life, my habits, my friendships and I don't regret anything of that.*' (Q20)

6.8 Summary

There are several indications that may lead to gender transformative changed that have appeared since the 2016 earthquake in Amatrice. Women scored themselves positively with regards to the statements given to determine their sense of agency. They consider themselves specifically capable to make decisions independently and determine their own goals. Many women in Amatrice were able to constitute their agency through their roles, responsibilities and capacities in times of disaster. They were able to take care of themselves and did not wait around when they could already do something themselves to better a situation. Women increased their sense of agency after the earthquake and showed a great extent of self-reliance, but also in taking care of others. They reported being active and resourceful by going out, helping and organising themselves. However, using collective agency disappeared sometime after the earthquake and women were constricted to their own capacities.

Moreover, since the earthquake, several new committees and associations have been established which allow women to organise themselves in networks. One of these is La Casa delle Donne, whose main aim it is to give women an economic purpose using the resources of the territory. Despite being widely appreciated by the community, it also faces several challenges. By some the organisation is considered to have selfish interests, and it remains a challenge to involve more people. Women have found themselves in more leading positions in such initiatives, but in general there are still very few women in such positions. However, this is not generally understood: a focus is more the limited ability to act as a community rather than facing an inequality of gender. Many respondents narrated how they felt there was a power difference between men and women in Amatrice, but that this was not true for themselves. The town is considered rather traditional among respondents, yet at the same time usually both men and women have paid work and run the household jointly. According to respondents, gender inequalities have declined over time in Amatrice. Nevertheless, there remain challenges with regards to gender inequality and power differences. Moreover, independence was found among female respondents and the consensus resided in that women would have obtained more rather than less independence since the earthquake, if there were any changes in the first place. Finally, several other opportunities arose which made women more emancipated, socially engaged, able to find work and aware of own strengths.

Chapter 7
Discussion

This chapter will discuss and interpret the results presented in the previous chapter. First, the wider context in which this research navigates is discussed by restating the research aim and describing its contribution to the current academic debate. Second, this chapter integrates the findings of this study with the conceptual framework that is composed of gender, intersectionality, agency, resilience and gender transformative change. Third, the final section reflects on the several aspects of this thesis.

7.1 The wider context

This research began with the understanding that the impact of disasters is gendered and may open a window of opportunity for gender transformative changes. This is relevant, since a truly gender responsive system has failed until now and addressing gender equality and women's agency in disaster contributes to the creation of this (Zaidi & Fordham, 2021). The overall aim of this research was to find out if and how women's agency has changed since the 2016 Amatrice earthquake, how that relates to their resilience, and how disaster in that sense might have offered opportunities for gender transformative change. Adding to the academic debate on disaster and gender is important, because globally, despite increased attention to gender, current DRR policies and practices insufficiently challenge existing, unequal social and institutional structures. Instead, they accommodate the gender status quo and negate the responsibility to translate disasters into opportunities for transformation (Nonoguchi & Tanaka, 2016; Yadav et al., 2021).

Disaster recovery is regarded as a potential window of opportunity but may also be accompanied by stagnation or regression. In the academic debate there is discussion on whether disasters as a focusing event can really cause change, or are accelerators of existing tendencies. For this research it was enquired whether the 2016 Amatrice earthquake was an opportunity to enhance gender equality and women's empowerment, as the aftermath of a disaster can present opportunities for new and more progressive gender roles and relationships to emerge (Robles & Benavidez, 2018). Disasters also elucidate social structures that may initiate change if people use their agency. As a result, disasters can trigger changes that challenge historical patriarchal relations, which could potentially decrease the vulnerability of women in disasters (Moreno & Shaw, 2018).

7.2 Amatrice

The municipality of Amatrice is characterised by depopulation and an aging population due to limited (job) opportunities for youngsters. The local economy relies mainly on agriculture and tourism, the latter which is significantly impacted by both the earthquake and COVID-19. Despite the destruction, residents that stayed in Amatrice demonstrate a strong attachment to their territory. Where people lost most physical references to the place, the immaterial bond to the place remained. This is not an uncommon phenomenon, see for example Blondin, 2021. Moreover, this connection helped people who lost everything, in their recovery.

Nevertheless, Amatricians feel they lack the ability to cooperate in a cohesive manner. Residents generally have closed and selfish characters which goes along with a lack of cohesion or sense of community. As a consequence, there is distance among inhabitants which causes them to remain strangers to one another. In addition to distance, jealousy, a high degree of social control and competition were also noted. Right after the earthquake, a strong social cohesion emerged among the survivors. This solidarity did not last, as people got greedy and started hoarding the donations. As such the individuality returned, and the earthquake only caused temporary changes and therefore failed to make changes at a community level.

The disaster did not follow the typical stages of a DRR cycle, as the recovery phase was impacted by the pandemic. No clear pre- and post-earthquake phases could be identified. Instead, at first a strong social cohesion and solidarity appeared in the emergency phase, which soon disappeared. After a while, reconstruction slowly started, but three years post-earthquake, the COVID-19 pandemic hit: reconstruction was put to a halt and society was isolated. The earthquake and pandemic took away social life and increased fear, thereby reinforcing individuality. Five years since the earthquake and two years since the pandemic hit, residents refer to a post-pandemic phase where reconstruction is picked up again. A striking contrast between these phases is how Amatricians first, in avoidance of aftershocks, had to stay outside as much as possible and sleep in cars. But during the pandemic, they were bound to their temporary emergency houses (SAE). Therefore, the disaster helix (e.g. Bosher et al., 2021) is a more suitable model, which better acknowledges the role of complex systems, rejects the idea of a closed loop and allows multiple scales and instability to occur.

The reconstruction of Amatrice is considered slow and associated with a lack of planning and organisation due to the complex bureaucratic system. This causes discontent among residents as well. An economic strategy was chosen where restaurants were rebuilt before starting on resident's houses, in order to for tourists to return to Amatrice. This strategy did not help the community equally as restaurant and shop owners were benefitted over others. Moreover, there is a discrepancy on the support that residents have received: some people are better off than before, whereas others have no prospect of when they will be able to move out of the SAE.

7.3 Gender

Studying disaster from a gender lens is relevant for example because gender inequalities result in gender-differentiated disaster impacts. These influence gender dynamics, which can in turn affect future resilience to shocks (Erman et al., 2021). Therefore gender equality is a fundamental part of disaster resilience. It was not the aim of this study to measure gender equality in Amatrice. Nevertheless, roles, relations and responsibilities were researched to obtain a general understanding. Amatrice can be considered traditional and patriarchal, but the gender roles and relations are changing towards more equality. According to respondents, women are considered the main character of the family, albeit inside the house. More men than women do paid work, but money is shared and there is not significantly more access to money by men. The household heads are usually both parents, and when not, gender was insignificant to this. Women engaged in paid jobs as well, but there is a slight bias in these results as

those were also easiest women to approach. Women who are more restricted to the domestic domain were harder to reach, but at the same time the majority of shop owners were female. Even though Amatrice has limited employment opportunities, it could be argued that the earthquake offered opportunities more beneficial to women than men. That is, because priority was given to the rebirth of the tourism and catering sector – two domains which offer employment typically associated for females. As such, this poses an opportunity for women.

There was a distinct difference between how men and women responded to the earthquake. Both in the short-term and long-term, men and women coped with the consequences differently. Where generally speaking, women stepped forward, started to organise what was needed, men paralysed. More men fell into depression and stagnated, whereas women were identified as stronger and moving forward, trying to reinvent themselves. The earthquake demonstrated this strength through their exposure in the public sphere. This is not an uncommon observation in gender and disaster research and thus confirms existing knowledge. Contrastingly, men experienced a pressure as a consequence of the patriarchal culture. Due to the earthquake, their jobs were lost and they therefore failed to provide for their families. This caused some men to fall into depression and alcoholism, which in some cases also led to increased gender-based violence. Generally disaster literature focuses on the vulnerability of women, but this research highlights the vulnerability of men in that sense. This is line with an existing research on gendered vulnerability to floods and landslides in Italy, which found that men are more vulnerable for most age categories (Salvati et al., 2018). Women responded better, indicating they can have a crucial role in DRR policies. However, this risks a kind of gender inclusion in DRR policy based on the understanding that they are better able to distribute resources and provide help. As argued by Bradshaw (2015), economic efficiency rather than vulnerability is then at the heart of gendered reconstruction projects. This makes response to disasters another element of women's caring role and adds a burden to them.

7.4 Intersectionality

Differences in female and male vulnerability to risk from natural hazards are often exacerbated by marginalisation due to factors such as race, disability, age or sexual orientation (Robles & Benavidez, 2018). Individuals simultaneously belong to multiple social groups – of which gender is just one – which shapes their risk profile in the context of disasters (Zaidi & Fordham, 2021). Over the years, research in the domain of gender and disaster has underlined the importance of intersectionality and has showed important differences in women's disaster experiences (Enarson et al., 2018). An intersectional lens was therefore also adopted for this research.

In Amatrice, the experiences of women related to the 2016 earthquake are influenced by other characteristics aside from their gender. In particular age seemed to be of significance. Indeed, old age (being older than 65) influences vulnerability, according to social norms and culture (Ngo, 2015). Limited mobility, economic vulnerability and marginalisation play for example a role in this. Yet, age in itself is also intersectional, where for example social class and ethnicity make a difference to this too. In Amatrice, age affected the capacity to envision a future and act in of recognition of that. These results were confirmed by different respondents. Age thus seemed to influence agency of the elderly in a

negative manner as older people risked of falling into depression because of their limited capacity and mobility.

With regards to resilience, the related factors enhancing resilience among older people experiencing disaster are not well known. In addition to the scarcity of robust evidence there is a gap in knowledge on resilience among older people experiencing a disaster (Timalsina & Songwathana, 2020). For Amatrice, many respondents expressed less resilient behaviour among older people. According to the respondents, in absence of a long future ahead, elderly residents struggle to see a reconstructed Amatrice and are therefore more inclined to get stuck in the tragedy instead of bouncing back.

7.5 Agency

Women's agency in disaster is understood as the capacity to make decisions about one's own life and act on them to achieve a desired outcome free of violence, retribution or fear (Erman et al., 2021). Women's capacity, knowledge and skills were considered to understand the way in which they exercise agency. This research suggests Amatrician women were active and resourceful. They were able to constitute their agency through their roles, responsibilities and abilities in times of disaster. From existing research it follows that immediately after disaster women's roles are more clearly visible because they are not only restricted to the domestic sphere but exposed to the public domain. This could also clearly be noted in Amatrice. Women took actions in protecting and supporting their family members and displaced community members in response and recovery phases. They were active and resourceful by going out, helping others and organising themselves. Women increased their sense of agency after the earthquake and showed a great extent of self-reliance, but also took care of others. In addition, women also considered themselves capable to make decisions independently and determine their own goals. Despite the above, it can be questioned to what extent the demonstration of agency has caused changes for women in Amatrice. Moreover, collective agency soon disappeared after the earthquake and therefore did not cause long lasting changes.

Agency also often emerges as an enabler for resilience as it informs women's disaster resilience and looks at how gender is performed in gender roles (Haffejee & Theron, 2019). If women use their agency, the social structures that disasters elucidate may initiate change which could transform gender equality. Women's agency in disaster may therefore initiate a change in gender roles, reduce vulnerability and increase resilience.

7.6 Resilience

Resilience challenges unequal gender relations and can be the pathway to produce changes in gender relations and empower women in the context of disasters. The activities which women undertake in the context of resilience, such as networking, communicating risks and caretaking, attribute to the factors outlined that enable resilience (Erman et al., 2021; Horton, 2012; McNamara et al., 2020; Moreno & Shaw, 2018). This research studied how agency and changing gender roles informed women's resilience in disaster. Increased resilience is also indicative of gender transformative change.

The majority of women participating in this study considered themselves resilient. Women found different pathways to reduce and cope with the impacts of the earthquake and were able to do so independently. In cases where women were mothers, children proved a source of strength to keep moving forward. However, none of the respondents argued that one can prepare for an earthquake, making them less resilient. This was mainly attributed to substandard housing practices and was not gender specific. In addition, preparation was understood only in terms of housing and therefore a challenge arises creating the understand that preparation is possible in other ways too. No social learning from previous earthquakes took place either. Indeed, social learning is not self-evident (e.g. Warner, 2013). Therefore, it could be argued that women in Amatrice are more prepared now because of the earthquake experience and understanding of risk, but it can be questioned to what extent this makes them more resilient. In addition, respondents are aware of the earthquake risk, but perceive this with a lot of fear which is strongly influenced by the quality of houses. As such, they continue to depend on houses for safety and preparedness.

The wider context in which people navigate, such as power relations, also affect the ability of people to be resilient. Generally, women in Amatrice seemed to have equal access to (financial) resources than men. Some women had more than before the earthquake, for some there were no changes. For example, they were either working before the earthquake and still do so now or did not and continue not to. One coping strategy of respondents was migration, which did not seem gender sensitive but rather based on other contextualities such as employment opportunities or moved needs of children. It also depended on how much loss was suffered and presence of social protection. Many residents of Amatrice had to find sources of livelihood elsewhere, but farmers were usually able to continue their work, which made them more resilient.

7.7 Gender transformative change

Disasters are potentially accompanied by change, as they may cause regression or transformation. In this regard, resilience can not only be viewed as 'recovery to withstand' or 'bouncing back', but instead it offers an opportunity to 'bouncing forward', in a way that challenges gender relations and brings about a gender transformation. The physical and social disruption of disaster may destabilise processes of reproduction of gender roles and create potential spaces for women's empowerment. However, old patterns may return as there is path dependency on these, for example on the domain of gender. Economists often relate to creative destruction and a 'beautiful disaster', which entails a tendency of acceleration of processes and push effects. A social nuance must be applied to this because it requires that these ideas existed, if latently, before the disaster (Warner, 2013). No evidence was found for a gender agenda in Amatrice prior to the disaster. There was more a focus on the limited ability to act as a community rather than facing an inequality of gender. Many respondents emphasised their desire to go back to normalcy. Nevertheless, there is certainly a case to be made for 'building back better', albeit not in the gender domain. For example, reconstruction planning includes more modernity and enhanced infrastructure. In addition, houses will be rebuilt seismic-proof. Also, some people were better off than before earthquake or women started working that did not do so before. Yet, this was possibly motivated from need, not from desire.

Gender transformative change requires individual agency through critical analysis and awareness of how power inequalities affect relationships and opportunities, how network-building can strengthen relationships, and organisation can influence change (Hillenbrand et al., 2015). It is more than income generation or service provision but encompasses development of women's leadership capacity, advocacy networks, consciousness raising and coalition formation instead. Research has indicated that a post-earthquake period can cause a surge of grassroots networks of women, where they organise themselves and take on leadership roles (Horton, 2012). If networks are to maintain long-term support, they have the ability to transgress traditional gender roles and norms. Women's networks play an important role in disaster response (Bradshaw, 2015), and at the grassroots level, women's organisations can challenge stereotypes. Moreover, post-disaster women's projects have the ability to move from immediate emergency needs to long term strategic interests of women (Enarson et al., 2006).

There are several indications that may lead to gender transformative change that have appeared since the 2016 earthquake in Amatrice. Opportunities arose which made women more emancipated, socially engaged, able to find work and aware of their own strengths. Moreover, independence is an indicator of gender transformative change and the female respondents from Amatrice are considered so. Nonetheless, it remains unclear whether there was really more independence among women since the earthquake, but it is argued that at least there is not less independence than before the event.

Since the earthquake, several new committees and associations have been established which allow women to organise themselves in networks. One organisation which took the responsibility to translate disasters into opportunities for gender transformative change is La Casa delle Donne, whose main aim it is to give women an economic purpose using the resources of the territory. Despite being appreciated by the community, the organisation also faces several challenges such as a limited reach and accusation of selfish interests. In La Casa delle Donne as well as other committees, women have found themselves in more leading roles. But on a general level, there are still few women in powerful positions.

Moreover, activism, organisation, assertiveness and participation were often linked to second homeowners from Rome. They had no right to the temporary emergency houses and are often regarded as outsiders, yet they are often those involved in organising activities. Several respondents shared that residents want these activities and for example incentivise tourism or generate awareness for gender-based violence, but when it comes to it, there is limited participation. It is therefore questionable to what extent these indications of gender transformative change derive from the primary residents in Amatrice.

There are diverging perspectives in research on whether gender transformative changes are temporary or structural. Another challenge is the notion of whether something is a transformation, or more of the same. With the birth of La Casa delle Donne, there is more awareness on gender issues and women's empowerment so there is a change to that regard, but the question remains whether these changes are structural. How to ensure that sudden empowerment is not reversed with a return to normalcy once recovery and reconstruction have taken place? In Amatrice, several respondents shared the aim to return

to normalcy in a place that looks different from what it has ever been. Moreover, it must be considered what real change actually entails and from whose perspective this is labelled as change. For example, a change of discourse does not have to mean a change of actors, rules and resources.

7.8 Reflections

This research benefited from the presence of La Casa delle Donne as it was a physical place that was established post-earthquake and where an explicit focus is on women's empowerment. The women from the organisation were also extremely helpful and eager to contribute to this research, despite a language barrier. Without this organisation, it would have been more difficult to find indications of gender transformative change. Careful attention was paid to avoid a bias in these results, through involving many respondents who are not involved with the organisation. Nevertheless, the recruitment of respondents was not a result of random sampling, but from convenience and snowball sampling instead. Different snowballs were used, in which both my host and La Casa delle Donne played a big role. However, sometimes this snowball sampling would cause people to refer me to respondents that were interesting to talk to, and not so much random people that might have been more representative for a larger population. As such, it can be argued there is a limited the sample to the people 'out there'. People that are harder to find, were also harder to reach for this research. This research aimed at including a diverse group of respondents, but a success bias arises in the difficulty to reach respondents behind closed doors that do not commonly find themselves in a public sphere.

During fieldwork an addition was made to the research methods, which was to include questionnaires. This allowed the researcher to approach people in Italian during absence of a translator. This addition allowed for more data, triangulation of data, and adds to the reliability of the dataset. In the questionnaire there was a bias towards female shop owners (women with paid work) as they were visible and approachable. Therefore, the questionnaires were also distributed online. But physical questionnaires also allowed people that were not comfortable using digital means to participate. As such, despite a bias towards active and available respondents, this research succeeded to include a wide variety of actors: female, male, young, old, experts, activists, residents and second homeowners. With that, the multiple social categories to which they belong are acknowledged.

Moreover, accounting for personal changes and emotions is necessary to be transparent about ourselves as being the main instrument in ethnographic research (Lecocq, 2002). Rather than leaving emotional account invisible, sharing such reflections contribute to a more credible and trustworthy thesis. The personal state of mind not only impacts one's view on the matter studied but is also decisive in what you see and thus impacts how we practice research. During my presence in Amatrice, I was also faced with several emotions that could have affected the research outcomes. In relation to the trauma of respondents I was often touched by their stories and usually responded quite emotionally when they got emotional themselves. In addition, seeing the living circumstances of the people affected me more than expected. Hearing the stories and traumatic experiences of respondents was reinforced by the rubble and destruction still widely visible on the research site. In my view, my emotions and empathy did not

impact the research in a negative manner. Instead, it brought me closed to respondents, which allowed for a more comfortable dialogue that deepened the dataset and made it richer.

For in-text references, this research did not make an explicit distinction between respondents on the basis of their gender, age or profession. The group of respondents included residents, experts and activists. This choice was made because no contradiction seemed to appear between the groups. Instead, the knowledge was accumulated with each respondent. In addition, it is acknowledged that all respondents are a mix of their social characteristics and thus do not belong to one particular group to be distinguished. Therefore, not making this distinction was the appropriate choice. To account for the differences among respondents, an overview of respondents and relevant characteristics is available in Appendix E.

In addition, I would like to reflect on the fact that measuring gender transformation is complicated. Measuring a transformation or change requires comparison to an earlier measurement. However, there was no pre-earthquake measurement available. Instead, the answers were based on insights from the community. Besides, in case of change, this may also have occurred for other reasons than the earthquake. It is therefore acknowledged that this research cannot give a concise answer as to whether a gender transformation has taken place. Instead, it aimed to reveal aspects indicative for gender transformative change. Most respondents shared how they felt that men and women were equally impacted by the earthquake. Nevertheless, this research demonstrated the agency of women post-earthquake and revealed that the consequences seemed to impact men more than women.

This research was performed from a constructivist research approach. This means that the results are based on local memories, experiences, truths and perceptions. There are several limitations which this approach brings. Women's agency and resilience are self-attributed which may be disjointed from their resilience according to other standards. In addition, memories can be deceptive. However, this approach is still considered the appropriate choice. Taking a constructivist approach to this research was useful, as it enabled the understanding of the experiences of research participants. Moreover, as it centred the truth around the respondents truths themselves, it put respondents in the driver's seat which also contributes to their empowerment in the context of disasters.

Finally, the research was performed in a region where English was spoken very poorly, which raised the need for a translator. In addition, 4 out of 16 respondents spoke English themselves, which is not illustrative for the Amatrician population. In absence of the means to pay a fixed translator over the whole fieldwork period, this research made use of six different translators. The use of so many translators, their varying levels of English and connection to Amatrice significantly impacted the data collected. None of the translators were professionals but were happy to help the researcher in the best way they could. Although at times challenging, they were constantly reminded to translate directly, and not in third person, to make the translations as direct as possible. Nevertheless, through the process of translation, meaning could have been lost. All the translators were offered a small sum of money, which they all rejected.

In this light, the research would have benefitted from using only one translator throughout the entire process. This would have allowed for a better relationship to be built between the researcher and translator and added consistency to the styles of translation. This issue also brings forward the discussion of whether research should even take place in foreign contexts. Having an Italian researcher perform this research would not only take the need for a translator away, but it would also allow for an easier rapport between respondents and better understanding of culture and context. However, from a discussion with an Italian social scientist (who also studied the Central Italy earthquakes) on why there is such limited English literature available on Italian research, it followed that he believed it was actually great to have a foreigner do research in this place and spot relevant issues that might else have stayed obliviate to local researchers. Moreover, an English contribution on an Italian case to the international academic debate is deemed relevant.

Chapter 8
Conclusion

This research has sought to understand and shed light on how women's agency and resilience in post-earthquake Amatrice have provided opportunities for gender transformative change. Gender and disaster research needs to address women as independent agents in order to gain a better understanding of how disaster affects women's resilience and how this can enable a gender transformation. In recognition of this, this research concentrated on women's agency post-disaster in the different gender roles they pertain, how this relates to their resilience and has explored indications for gender transformative change. This chapter gives a conclusion to this research and makes recommendations for future research.

8.1 Conclusion

There are several indications of gender transformative change that have appeared since the 2016 earthquake in Amatrice, which derive from women's agency and resilience. Women increased their sense of agency in times of disaster. They can be considered active and resourceful agents as they took care of themselves and others in response and recovery phases after the earthquake. They reported being active and resourceful by going out, helping and organising themselves. The earthquake has demonstrated the strength of women as they were exposed to the public domain. Contrastingly, men were more passive and stagnated, thus responded worse to the earthquake impact. As such, there was a distinct difference between how men and women responded to the earthquake. This indicates women could have a crucial role in DRR policies and the gendered impact must be taken into account to provide gender sensitive policy that focuses on the vulnerability of men. This is interesting, because the current focus of gender sensitive DRR is on the vulnerability of women. In addition, the earthquake allowed women to understand what they are capable of. Women collaborated after the earthquake, but this was only temporary. Collective agency thus soon disappeared after the earthquake and therefore did not cause lasting changes.

Another aspect of gender transformative change is resilience, which can be a pathway to producing changes in gender relations and empower women in the context of disasters (Moreno & Shaw, 2018). The findings of this research suggest that women in Amatrice generally consider themselves resilient. Indeed, they found different pathways to reduce and cope with the impacts of the earthquake and were able to do so independently. Nonetheless, regardless of gender, respondents' risk perception and preparedness is limited to that of building safety. In addition, earthquakes are perceived with a lot of fear. No social learning took place from previous earthquakes, nor did it seem to have from this particular event either. This indicates less resilient behaviour. In terms of (financial) resources, women generally seemed to have equal access as men, with some women more than before the earthquake, but this did not seem significant. Despite the experience of the 2016 earthquake, it is questionable how resilient Amatrician women are.

The experiences of women related to the 2016 earthquake are influenced by other characteristics than gender as well, where particularly age is of significance although this is also affected by other characteristics. Respondents ascribed less resilient behaviour to older people as elderly residents are more inclined to get stuck in the tragedy instead of bouncing back. Their age affected their ability to envision a future and act in of recognition of that.

No evidence was found for a gender agenda in Amatrice prior to the disaster, but gender is not on the minds of people in general. In Amatrice, there was more a focus on the limited ability to act as a community rather than facing an inequality of gender. The earthquake and the pandemic worsened the absence of community cohesion, so in that regard no structural transformation took place on a community level, despite small changes directly post-earthquake. Many respondents emphasised their desire to go back to normalcy. Nevertheless, respondents indicated how gender roles and responsibilities have been changing in the last decades. Women are considered the boss inside the house, they are independent, and it is not uncommon for them to do paid work. Their role in the house was not impacted because of the earthquake. Since the earthquake, more women have also started working although this derived from a need, not from a desire. The reconstruction strategy did offer an opportunity for this, because priority was given to the rebirth of sectors which offer opportunities typically for women.

Other opportunities arose, such as personal growth, which made women more emancipated, socially engaged, able to find work and aware of their own strengths. In addition, women in Amatrice seemed independent and considered themselves so, which is an indication of gender transformative change. However, it remains unclear to what extent this is a consequence from the earthquake. Nevertheless, women did not become more dependent on others in the emergency phase after the earthquake. Moreover, since the event, several new committees and associations have been established which allow women to organise themselves in networks. One organisation which took on the challenge to translate disasters into opportunities for gender transformative change is La Casa delle Donne. This organisation, that was established after the earthquake, created gender awareness that was not apparent in the society before. However, despite being generally appreciated by the municipality, the organisation has a limited reach and impact and faces additional challenges such as competition. In La Casa delle Donne as well as other committees, women have found themselves in more leading roles. Yet in general, there are still few women in powerful positions. In addition, activism, organisation, assertiveness and participation are often linked to second homeowners from Rome. This population had no right to the SAE and are regarded as outsides by primary residents, but these are the people often involved in organising activities. It is therefore questionable to what extent these indications of gender transformative change derive from the primary residents of Amatrice. All in all, the female residents of Amatrice are active and resourceful agents, but their resilience is limited by their risk perception and preparedness capacities. The earthquake has certainly provided several opportunities and some indications for gender transformative change in Amatrice can be noted, but the impact seems limited and lasting effects of these remain unclear.

8.2 Recommendations for future research

A main discussion point in literature is that there are diverging perspectives over whether post-earthquake changes on a gender level are temporary or structural. Moreover, measuring gender transformative change is complicated by the absence of a second measurement. Therefore, further research is recommended at later moment in time to enable a comparison. This would also indicate if changes are not reversed with a return to normalcy after reconstruction further progressed. A suggested timeframe for this would be another five years. That is, because the time between the earthquake and this research was also five years, because social change as well as reconstruction take time and also because this timing could shed light on whether the changes are structural or not.

Moreover, constructivist research on a particular case like Amatrice is very context specific. This research has demonstrated the relevance of gender and disaster research in a more developed country. It is therefore of importance for more gender and disaster research to take place in varying contexts, to obtain a better understanding of the topic in different places (with varying cultural, economic and social structures). This does not only refer to other developed contexts, but even within various regions of Italy.

Finally, it would be interesting to research how earthquake preparedness in Amatrice could be enhanced aside from seismic-proof housing. That is, because Amatrice is prone to earthquakes and the local population considers themselves unable to prepare for such an event. In addition, this research has demonstrated the differentiated responses between men and women from which it follows that women could have a crucial role in DRR practices. A particular challenge lies in the enhancement of community resilience, since the current society struggles to act as a community. As bureaucratic procedures complicate reconstruction and as there is limited community resilience, an opportunity arises in the enhancement of community-based disaster risk reduction.

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Appendices

Appendix A: Interview guide for semi structured interviews

Theme 1: The 2016 Central Italy earthquake

a) Can you describe the roles of men and women during the earthquake? Was there a difference between these or not?
b) Do you think men and women were treated differently during the earthquake? Please explain how.
c) During the earthquake and after, what was the division of roles in the household? Did things change compared to how that was before?
d) Did the earthquake change anything with regards to social relations among people? How?
e) Since the earthquake, do you have new/other roles in the home? If yes, what are they? How does this relate to your gender?
f) Since the earthquake, do you have new roles inside your community? If yes, what are they? How does this relate to your gender?
g) Are there changes in your profession (paid work) or caretaking (unpaid) work since the earthquake? Why? Please explain.
h) What did the earthquake change most for you personally, socially and economically?
i) (How) do you think the impact of the earthquake was different for men and women?

Theme 2: Resilience

a) In your household, who has access to finances and savings?
b) How do you perceive the risk for a new earthquake? Do you think this differs between men/women/x?
c) Do you know how to prepare for an earthquake? If yes, (how) do you prepare? For example, what preparedness activities do you undertake?
d) (How) do you receive information for increased seismic risk? Do you find this information reliable?
e) Would you evacuate, if possible, if there is increased risk for a new earthquake? How, with whom, and where to?
f) Did you receive any money after the earthquake? If yes, was this given to a household or a specific individual? How did you use this money?
g) Do you have any insurance for another disaster?

Theme 3: Gender roles and relations in Amatrice

a) How would you describe a typical family in Amatrice?
b) How is your own household organised? For example (but not limited to): Who is responsible for taking care of children? Who is responsible for taking care of financial decisions? Who is responsible for taking care of the major decisions related to household?
c) How would you describe the relations between men and women in Amatrice? For example (but not limited to): is there a difference in power relations between men and women? Do you experience inequalities, if you compare yourself to another gender? Does Italian culture play a role in power differences?
d) How do you think the relations between men and women have changed over time? Do you think the earthquake had an impact on this? Can you explain how?

Theme 4: Changes on a gender level

a) Do you think that any opportunities emerged from the earthquake? Please explain.
b) Are you engaged in social networks, clubs or associations? Is this different from before the earthquake?
c) Do you have a leadership role somewhere? Is this different from before the earthquake? Would you like to be more in a leadership position? Why (not)?
d) Do you have more or less power in any aspect compared to before the earthquake?
e) Do you have control over specific assets, that you did not control before the earthquake? For example, a car, house, money, personal items?
f) Do you engage in empowerment trainings or gender related activities?

Theme 5: Women's agency

a) Do you think you (or women in Amatrice) can make independent decisions?
b) Do you think you (or women in Amatrice) are able to define your own goals in life? Or is this influenced by someone or something else? Please explain.
c) Can you (or women in Amatrice) act upon these independently or are you (or they) dependent on someone?
d) Do you see yourself (or women in Amatrice) capable of bringing about change or able to make a difference? How?
e) Do you think the earthquake gave you (or women in Amatrice) new skills, knowledge, and/or capacities? Please explain these.
f) If yes, how and where are these skills, knowledge and capacities used?
g) Do you think there are opportunities that arose because of the earthquake that you (or women of Amatrice) do not use? Please explain your answer.

Appendix B: Interview guide for interview with 3:36 Committee

1) Could you start by telling me a bit more about yourself and your relation to Amatrice? You used to have a house there, why? Do you still visit Amatrice sometimes, despite not having a house there? Why?

2) I learned that you are the president of the 3:36 committee. Can you tell me something about this committee, why it was established and what your goal is? Why are you yourself part of this committee, and what do you believe that the committee is important for? What does it do?

3) Can you share your insights on the gender roles and relations (such as tasks and responsibilities) on the household level in Amatrice? What are the differences between men and women, for example in terms of power, tasks, decisions, work, etc.? You live in Tuscany and come from Rome (correct?), so perhaps you can relate it to these places; what is the difference compared to Amatrice?

4) What do you think the impact of the earthquake was, on a gender level? For example, did men and women respond differently? How did they deal with the consequences? How did it affect the relations between men and women?

5) Do you think there might be changes on a gender level, that have appeared since the earthquake? For example, did men/women gain more/less power or responsibilities in certain aspects? Think for example about working, being more engaged in the community, having more responsibilities…

6) Do you think that the earthquake has brought about certain opportunities or possibilities for the people in Amatrice, in particular for women?

Appendix C: Interview guide for interview with La Casa delle Donne

1) When I asked you about why it was necessary to establish this organisation, you referred to the patriarchal society of Amatrice. Then my question to you is how this patriarchal society, in your view, impacts the women of Amatrice. Moreover, what was the role or effect of the earthquake in this? In other words: why did the earthquake incentivise you to create this organisation?

2) And why do you think there was need for a women's organisation (and not for example, a crafts organisation)?

3) You mentioned how all the previous mayors (since the earthquake) only served a short time. Why do you think that was? Why did they step down so soon?

4) What do you think the organisation has brought the women of Amatrice so far? In what ways do you think you've made a difference for some people, or impacted the society?

5) Do you have an idea on how the organisation is perceived by the women of Amatrice? How do they regard it?

6) How would you describe the relations between men and women in Amatrice? For example, is there a difference in power relations between men and women?

7) How do you think the relations between men and women have changed over time? Do you think the earthquake had an impact on this? Can you explain how?
8) How do you think the impact of the earthquake was different for men and women?

9) In your view, did the earthquake change anything with regards to social relations among people? How? Can you differentiate between men and women here or is that not relevant?

10) Do you think any opportunities emerged from the earthquake? For example, do you think that the earthquake gave women in Amatrice certain new skills, knowledge or capacities?

Appendix D: Questionnaire

English version:

Questionnaire: Gendered impact of the 2016 earthquake in Amatrice

Dear interviewee, my name is Isa and I am a university student from the Netherlands who leads research to better understand the gender impact of the earthquake here in Amatrice. The research is conducted independently. The information you provide for this interview will remain anonymous and will be treated confidentially. By submitting this questionnaire, you agree that your answers will be analysed for this research. If you have any follow-up questions or comments, you can contact me via my email: isa.patist@wur.nl or WhatsApp +31 6 40 29 84 39.

The questions are organised into five themes. In case you don't feel comfortable answering a question, you don't have to answer. There are no wrong answers and any information provided is useful to this research. Thank you so much for your time, it is much appreciated.

Unfortunately, I myself don't speak enough Italian and I apologise for that. Your answers will be translated into English for research, but you can fill in your answers in Italian. There are several options for completing this questionnaire:

1. Online, following this link:
2. Written, write your answers on a separate sheet and take them to the Agriturismo di Benni or contact me so I can come and get them.
3. In person, then, I can come and record the questions with a voice recorder. Please contact me so that we can set a date, time and place.

Theme 1: The 2016 Central Italy earthquake

a. Since the earthquake, do you have new/other roles in your home? If yes, what are they?
b. Since the earthquake, do you have new roles inside your community? If yes, what are they?
c. Are there changes in your profession (paid work) or caretaking (unpaid) work since the earthquake? Why? Please explain.
d. Do you think the impact of the earthquake was different for men and women? If yes, how?
e. Do you think that any opportunities emerged from the earthquake? Please explain.
f. Do you think the earthquake gave you new skills, knowledge, and/or capacities? Please explain.

Theme 2: Resilience

a. In your household, who has access to finances and savings?
b. How do you perceive the risk for a new earthquake?
c. Do you think you can prepare for an earthquake? Why? If yes, how?
d. Did you receive any money after the earthquake? If yes, how did you use this money?

Theme 3: Gender roles and relations in Amatrice

a. In your household, who is responsible for taking care of children? Myself/partner/together
b. In your household, who takes financial decisions? Myself/partner/together
c. In your household, who takes the major decisions? Myself/partner/together
d. Do you think there a power difference between men and women in Amatrice?
e. Do you have more or less power yourself, in any aspect, compared to before the earthquake?
f. Do you have control over assets, that you did not control before the earthquake? For example, a car, house, money, personal items?

Theme 4: Women's agency

To what extent do you agree with the following statements? 1 = strongly agree | 2 = agree | 3 = neither agree nor disagree | 4 = disagree | 5 = strongly disagree

a. I am able to make decisions independently: 1 – 2 – 3 – 4 - 5
b. I am able to define the goals that I set for myself: 1 – 2 – 3 – 4 - 5
c. I feel that I have a plan to reach my goals in life: 1 – 2 – 3 – 4 - 5
d. I feel that I am able to make a difference: 1 – 2 – 3 – 4 - 5

Theme 5: Demographic characteristics

Full name:
Gender:

Age:
Place of residency:
Education:
Current profession:
Marital status: single / married / widowed / divorced / other:
Household structure:
Children: yes or no, how many, what age, living with you?
Who is head of the household?: male / female / jointly
Religion:

This is the end of the questionnaire. Thank you so much for taking the time to fill out the questions. Feel free to contact me with additional questions or comments via email: isa.patist@wur.nl or WhatsApp: +31 6 40 29 84 39.

Italian version:

Questionario: Impatto di genere sul terremoto del Centro Italia del 2016

Caro intervistato/a, mi chiamo Isa e sono una studentessa universitaria dei Paesi Bassi che dirige ricerca per comprendere meglio l'impatto di genere del terremoto qui ad Amatrice. La ricerca è condotta in modo indipendente. Le informazioni da te fornite per questo colloquio rimarranno anonime e saranno trattate in modo confidenziale. Inviando questo questionario, dai il consenso che le tue risposte siano analizzate per questa ricerca. Se hai domande o commenti di follow-up, puoi contattarmi tramite la mia e-mail: isa.patist@wur.nl o WhatsApp +31 6 40 29 84 39.

Le domande sono organizzate in cinque temi. Nel caso in cui non ti senti a tuo agio nel rispondere a una domanda, non sei obbligato a rispondere. Non ci sono risposte sbagliate e qualsiasi informazione fornita è utile a questa ricerca. Grazie mille per il tuo tempo, è molto apprezzato.

Sfortunatamente, io stesso non parlo abbastanza italiano e mi scuso per questo. Le tue risposte saranno quindi tradotte in inglese per la ricerca, ma puoi compilare le tue risposte in italiano. Ci sono diverse opzioni per compilare questo questionario:

1) Online, seguendo questo link:
2) Scritto, scrivete le vostre risposte su un foglio a parte e portatele all'Agriturismo di Benni o contattatemi così posso venirle a prendere.
3) Di persona, poi, posso venire a registrare le domande con un registratore vocale. Vi prego di contattarmi in modo che possiamo impostare una data, ora e luogo.

Tema 1: Il terremoto del Centro Italia del 2016

a) Dopo il terremoto, hai nuovi/altri ruoli nella tua casa? Se sì, quali sono?
b) Dopo il terremoto, hai nuovi ruoli all'interno della tua comunità? Se sì, quali sono?
c) Ci sono cambiamenti nella tua professione (lavoro retribuito) o nel lavoro di portineria (non retribuito) dopo il terremoto? Come mai? Spiega per favore.
d) Pensi che l'impatto del terremoto sia stato diverso per uomini e donne? Se sì, come?
e) Pensa che dal terremoto siano emerse opportunità? Spiega per favore.
f) Pensi che il terremoto ti abbia dato nuove abilità, conoscenze e/o capacità? Spiega per favore.

Tema 2: Resilienza

a) Nella tua famiglia, chi ha accesso a finanze e risparmi?
b) Come percepisce il rischio di un nuovo terremoto?
c) Pensi di poterti preparare per un terremoto? Come mai? Se sì, come?
d) Hai ricevuto soldi dopo il terremoto? Se sì, come hai utilizzato questi soldi?

Tema 3: Ruoli e relazioni di genere ad Amatrice

a) Nella tua famiglia, chi è responsabile della cura dei bambini? me stesso/partner/insieme
b) Nella tua famiglia, chi prende le decisioni finanziarie? me stesso/partner/insieme
c) Nella tua famiglia, chi prende le decisioni principali? me stesso/partner/insieme
d) Credi che ci sia una differenza di potere tra uomini e donne ad Amatrice?
e) Hai più o meno potere tu stesso, sotto qualsiasi aspetto, rispetto a prima del terremoto?
f) Hai il controllo su beni che non controllavi prima del terremoto? Ad esempio, una macchina, una casa, soldi, oggetti personali?

Tema 4: Agenzia delle donne
In che misura sei d'accordo con le seguenti affermazioni? 1 = pienamente d'accordo | 2 = d'accordo | 3 = né d'accordo né in disaccordo | 4 = in disaccordo | 5 = fortemente in disaccordo

a) Sono in grado di prendere decisioni in autonomia: 1 – 2 – 3 – 4 - 5
b) Sono in grado di definire gli obiettivi che mi sono prefissato: 1 – 2 – 3 – 4 - 5
c) Sento di avere un piano per raggiungere i miei obiettivi nella vita: 1 – 2 – 3 – 4 - 5
d) Sento di poter fare la differenza: 1 – 2 – 3 – 4 - 5

Tema 5: Caratteristiche demografiche
Nome e cognome:
Genere:
Età:
Luogo di residenza:
Formazione scolastica:
Professione attuale:
Stato civile: celibe/sposato/vedovo/divorziato/altro:
Struttura della famiglia:
Figli: si o no, quanti, che età, vivono con te?
Chi è il capofamiglia?: maschio / femmina / insieme
Religione:

Questa è la fine del questionario. Grazie mille per aver dedicato del tempo per compilare le domande. Non esitate a contattarmi per domande o commenti aggiuntivi via e-mail: isa.patist@wur.nl o Whatsapp: +31 6 40 29 84 39.

Appendix E: Overview of respondents

This appendix includes three tables: an overview of interview respondents, an overview of small talk respondents and the two groups with which participant observation took place.

Overview of interview respondents

#	Date	Gender or organisation	Organisation name	Age category	Online/ offline	Interview style	Language
R1	3/11	Male	-	18-35	Offline	Semi structured	English
R2	4/11	Female	-	56 and older	Offline	Semi structured	Italian
R3	6/11	Female	-	56 and older	Offline	Semi structured	English
R4	17/11	Female	-	18-35	Offline	Semi structured	English
R5	21/11	Female	-	18-35	Offline	Semi structured	English
R6	21/11	Female	-	36-55	Offline	Semi structured	Italian
R7	21/11	Male	-	56 and older	Offline	Semi structured	Italian
R8	21/11	Female	-	56 and older	Offline	Semi structured	Italian
R9	22/11	Female	-	36-55	Offline	Semi structured	Italian
R10	27/11	Female	-	18-35	Offline	Semi structured	English
R11	28/11	Female	-	36-55	Offline	Semi structured	Italian
R12	28/11	Female	-	36-55	Offline	Semi structured	Italian
R13	7/12	Organisation	Anti-violence centre Rieti (Centro Antiviolenza Rieti "Il Nido di Ana")	-	Online	Semi structured	English
R14	13/12	Female	-	36-55	Online	Semi structured	Italian
R15	14/12	Organisation	3:36 committee	-	Online (written)	Structured	English
R16	19/12	Organisation	La Casa delle Donne	-	Online (written)	Structured	Italian

Overview of small talk respondents

#	Date	Gender	Age category
S1	28/10	Male	36-55
S2	28/10	Male	56 and older
S3	29/10	Male	36-55

S4	1/11	Female	56 and older
S5	2/11	Female	18/35
S6	2/11	Male	56 and older
S7	5/11	Male	56 and older
S8	5/11	Male	36-55
S9	8/11	Female	56 and older
S10	11/11	Female	18-36
S11	20/11	Female	36-55
S12	26/11	Male	18-35

Overview of participant observation		
#	**Name**	**Function**
P1	La Casa delle Donne	Local women's organisation
P2	Emidio di Treviri	Italian research group

Appendix F: Informed consent

<u>English version:</u>
Informed consent form

Dear participant,

My name is Isa Patist, I am a master student at Wageningen University in the Netherlands. I am conducting research on the earthquake that struck Amatrice in 2016. With this research, I aim to get insight if and how gender roles and relations have changed as a consequence of the earthquake. This relates to if and how women are using their skills, knowledge and capacities differently and how that affects resilience (preparedness & coping capacity) for another earthquake.

You are here because you are willing to have an interview about this. Before we proceed, please read the specifics about the interview below. In this interview you will be asked about your personal experiences around gender in relation to the earthquake and in your everyday life. There are no wrong answers to this. At all times, it is important for both of use to feel trust, openness and equality during the interview. The broad topics I would like to discuss are as following:

- Women's agency (capacities, skills, knowledge) that arise because of the earthquake
- Changes in gender roles & relations (such as household tasks, paid work, caretaking, decision-making abilities)
- Preparedness and coping capacity for another earthquake

This research does not make promises regarding changing a personal situation, or changes in the reconstruction of Amatrice. Instead, this research hopes to add to the global understanding of gender in disaster, for which interviews like these are very valuable.

The interview is expected to last around 60 minutes and will be recorded with your permission. The recorded interview will be transcribed in order to analyse the information. The recording and transcription of the interview will be kept in strict confidence, with only myself (the researcher) and a possible translator having access to it. Your name will be changed to a pseudonym, to ensure anonymity. You are free to withdraw from the interview at any moment in time, and you are not obliged to answer questions if you do not want to.

Please sign below if you agree to participate in this interview. Thank you very much for your cooperation. If you have any further questions, you can ask them now.

Consent form – participation in this interview about gender relations and the 2016 earthquake

- I read the information about participating in this interview and had enough time to read the information and ask questions, which were answered satisfactory.
- I am aware that participating in this interview is voluntary and I can stop at any moment in time, for which I do not need to provide a reason.
- I give permission to record this interview and understand that anonymous citations of this interview could be used for the research analysis.
- If I have any further questions, I can e-mail the researcher at isa.patist@wur.nl.

I hereby declare I want to participate in this research:

Participant's name:	Researcher's name: Isa Patist
Date:	Date:
Signature:	Signature:

<u>Italian version:</u>
Modulo di consenso

Gentile partecipante,

Mi chiamo Isa Patist, sono una studentessa magistrale all'Università di Wageningen nei Paesi Bassi. Sto conducendo una ricerca sul terremoto che ha colpito Amatrice nel 2016. Con questa ricerca, miro a

capire se e come i ruoli e le relazioni di genere sono cambiati in conseguenza del terremoto. Ciò si riferisce a se e come le donne stanno usando le loro abilità, conoscenze e capacità in modo diverso e come ciò influisce sulla resilienza (preparazione e capacità di far fronte) in caso di un possibile altro terremoto.

Sei qui perché sei disposto ad avere un'intervista su questo. Prima di procedere, si prega di leggere le specifiche sull'intervista di seguito. In questa intervista ti verrà chiesto delle tue esperienze personali sul genere in relazione al terremoto e nella tua vita quotidiana. Non ci sono risposte sbagliate a questo. In ogni momento, è importante che entrambi provino fiducia, apertura e uguaglianza durante l'intervista. Gli argomenti generali di cui vorrei discutere sono i seguenti:

- Agenzie femminili (capacità, abilità, conoscenze) che nascono a causa del terremoto
- Cambiamenti nei ruoli e nelle relazioni di genere (come compiti domestici, lavoro retribuito, custodia, capacità decisionali)
- Preparazione e capacità di far fronte ad un altro terremoto

Questa ricerca non fa promesse di cambiamento di una situazione personale, né di cambiamenti nella ricostruzione di Amatrice. Invece, questa ricerca spera di contribuire alla comprensione globale del genere nei disastri, per la quale interviste come queste sono molto preziose.

L'intervista dovrebbe durare circa 60 minuti e sarà registrata con il tuo permesso. L'intervista registrata sarà trascritta per analizzare le informazioni. La registrazione e la trascrizione dell'intervista saranno mantenute con la massima riservatezza, solo io (il ricercatore) e un eventuale traduttore potranno accedervi. Il tuo nome verrà cambiato in uno pseudonimo, per garantire l'anonimato. Sei libero di ritirarti dal colloquio in qualsiasi momento e non sei obbligato a rispondere alle domande se non lo desideri.

Si prega di firmare di seguito se si accetta di partecipare a questa intervista. Grazie mille per la tua collaborazione. Se hai altre domande, puoi farle ora.

Modulo di consenso – partecipazione a questa intervista sulle relazioni di genere e il terremoto del 2016:

- Ho letto le informazioni sulla partecipazione a questa intervista e ho avuto abbastanza tempo per leggere le informazioni e porre domande, a cui è stata data una risposta soddisfacente.
- Sono consapevole che la partecipazione a questo colloquio è volontaria e posso interrompere in qualsiasi momento, per cui non ho bisogno di fornire una motivazione.
- Autorizzo la registrazione di questa intervista e comprendo che le citazioni anonime di questa intervista potrebbero essere utilizzate per l'analisi della ricerca.
- Se ho ulteriori domande, posso inviare un'e-mail al ricercatore all'indirizzo isa.patist@wur.nl.

Dichiaro di voler partecipare a questa ricerca:

Nome partecipante:	Nome ricercatore: Isa Patist
Data:	Data:
Firma:	Firma:

Appendix G: Ethics approval

WAGENINGEN
UNIVERSITY & RESEARCH

6706 kn Hollandseweg 1 Wageningen | The Netherlands

To whom it may concern

The following project proposal has been reviewed by the Social Sciences Ethics Committee (SEC):

Title: Does disaster enable gender transformative change? A study on women's agency and resilience in post-earthquake Amatrice (Italy)
Project team: Isa Patist
Funding: n.a.
Period: October – December 2021
Location: Amatrice (Rieti province, Italy)

The Committee has concluded that the proposal deals with ethical issues in a satisfactory way and that it complies with the Netherlands Code of Conduct for Research Integrity.

With kind regards,

Professor Dr Marcel Verweij
Chair Social Sciences Ethics Committee

DATE
02-12-2021

SUBJECT
Ethical approval of research project

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Wageningen University & Research is specialised in the domain of healthy food and living environment.